U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

**Federal Highway
Administration**

NAGHSR

REVISED DRAFT

Guideline for Minimum Uniform Crash Criteria (MUCC)

December 1997

TABLE OF CONTENTS

Executive Summary

Statewide motor vehicle traffic crash data systems provide the basic information necessary for effective highway and traffic safety efforts at any level of government -- local, state or federal. State crash data are used to perform problem identification, establish goals and performance measures, determine progress of specific programs, and support the development and evaluation of highway and vehicle safety countermeasures.

Unfortunately, the use of state crash data is often hindered by the lack of uniformity between and within states. While standards exist for collection of crash data, their use and application is inconsistent. For example, states do not collect the same information on their crash reporting forms, crash and data element definitions may differ, similar data elements may have different meanings, and/or others may have the same meanings but different codings. Inconsistent data within a state, or between multiple states, can result in incorrect interpretations, thus limiting the usefulness of the information.

Many states have recently revised their crash data reporting form, and others are now in the process of doing so. Several states, during their revision process, have contacted NHTSA or FHWA seeking guidance on what should be included. At national meetings, there have been informal requests for national guidelines for states to use when revising their crash forms or when working with software vendors. The ISTEA of 1991 required DOT to “ensure national uniform data” and to “establish minimum criteria” for reporting of highway deaths and injuries. However, because no such guideline exists, NHTSA and FHWA are cooperating with the National Association of Governors’ Highway Safety Representatives (NAGHSR) to develop a guideline on minimum, standardized crash data reporting.

Development of this guideline has been structured to obtain maximum input from all sectors of the highway safety community. It is intended to be a voluntary guideline, developed with the endorsement of many interested groups. To facilitate the process, a panel of experts in the collection, processing and use of crash data sponsored by the NAGHSR, the NHTSA and the FHWA is coordinating the development of the guideline. The panel has developed this *Revised Draft Guideline for Minimum Uniform Crash Criteria (MUCC)* for circulation to the traffic and highway safety community at large. Their input is now being solicited. An earlier version was circulated in June 1997. That draft was reviewed at a National Workshop and comments from individual reviewers were also received. This version incorporates those comments about the earlier version. State Highway Safety Offices are being encouraged to hold statewide meetings to coordinate review of the Guideline. The expert panel will meet again to review the input from the states and finalize the Guideline.

There are 74 data elements to be collected at the crash scene included in the minimum uniform crash criteria in the draft Guideline. These data elements cover the characteristics of the crash, vehicle, and persons involved. An additional 34 data elements are not collected at the scene but are either derived (11 data elements) from those that are collected at the scene or obtained by linking (23 data elements) to other data files, e.g., roadway data, injury data, etc. The total 108 data elements represent a "minimum" data set. States are encouraged to expand this data set when necessary to meet state specific needs.

A survey of the data elements collected by the 17 states providing crash data to NHTSA for its State Data System indicates these seventeen states are currently collecting 64% of the 74 MUCC data elements recommended for collection and, on average, collect an additional 28 data elements not included in MUCC.

The implementation of the final Guideline by states will facilitate improved crash data for use at the local, state, and federal levels for highway and traffic safety, injury control and public health purposes.

Acknowledgments

The development of the ***Guideline for Minimum Uniform Crash Criteria (MUCC)*** is being sponsored by the National Association of Governors' Highway Safety Representatives, the National Highway Traffic Safety Administration, and the Federal Highway Administration. Numerous state and local agencies and organizations have contributed staff to its development. The participation of the following individuals is recognized:

Frank Carlile	Florida Department of Transportation
David Dickens	Charleston West Virginia Police
Doug Donscheski	Nebraska State Patrol
Scott Falb	Iowa Department of Transportation
Rosa Gill	North Carolina State Division of Motor Vehicles
Dick Harmon	Iowa Bureau of Emergency Medical Services
Don Hillis	Missouri Department of Transportation
David Kleppe	North Dakota State Highway Patrol
David Lawrence	Louisiana Office of Public Health
Lance Mathess	Ohio State Patrol
Creighton Miller	South Dakota Office of Accident Records
David Mosley	Virginia Department of Motor Vehicles
Phil Salzberg	Washington Traffic Safety Commission
Manu Shah	Maryland State Highway Administration
James Templeton	Texas Department of Public Safety
Robert Thompson	Iowa Governor's Traffic Safety Bureau
John Watson	New York State Department of Transportation
Ralph Craft	Federal Highway Administration
Dennis Flemons	National Highway Traffic Safety Administration
Carl Hayden	Federal Highway Administration
Janet Johnson	National Highway Traffic Safety Administration
Sandy Johnson	National Highway Traffic Safety Administration
Janet Kumer	Federal Highway Administration
Tina Morgan	National Highway Traffic Safety Administration
Ed Milton	National Highway Traffic Safety Administration
Jack Oates	National Highway Traffic Safety Administration
Barbara Rhea	National Highway Traffic Safety Administration
Jackie Schraf	National Highway Traffic Safety Administration
David Sleet	National Center for Injury Prevention and Control
Carol Tan Esse	Federal Highway Administration
Dennis Utter	National Highway Traffic Safety Administration
David Bozak	InfoGroup, Inc.
Noel Bufe	Northwestern University Traffic Institute
Charles Compton	University of Michigan Transportation Research Institute
Barbara Harsha	National Association of Governors' Highway Safety Reps
Roy Lucke	Northwestern University Traffic Institute
Gary March	March & Associates
Matt Snyder	International Association of Chiefs of Police
Richard Pain	Transportation Research Board
Charles Peltier	International Association of Chiefs of Police
Patricia Waller	University of Michigan Transportation Research Institute

Introduction

Background

A motor vehicle crash report describes characteristics of the crash, the vehicles and people (drivers, injured and uninjured occupants and injured pedestrians and bicyclists) involved. On it, the police officer also records the results of his or her investigation of the crash. By using evidence found at the scene, and by interviewing participants and witnesses the investigating officer may answer such questions as:

- "In what directions were the involved vehicles and pedestrians moving prior to impact?";
- "What occurred during the impact?"; and,
- “What factors may have contributed to the crash?”

In most states, the data recorded on crash reports are computerized into a central, electronic crash data file at the state level. These statewide motor vehicle crash databases provide the basic information necessary for developing effective highway and traffic safety programs. Data from state crash data systems are used by local, state and federal agencies to:

- identify and prioritize highway and traffic safety problem areas;
- assess the effectiveness of laws and programs intended to reduce the frequency and severity of motor vehicle crashes and injuries; and,
- assess the relationship between vehicle and highway characteristics, crash propensity, and injury severity to support either the development of countermeasures or their evaluation.

At the Federal level individual crash reports also provide the basis for national crash information systems, either as the sampling frame or as a source of data. Data from these national systems are utilized in highway safety decision making by agencies at all levels of government.

Problem

Crash data lack uniformity between the states and, often, within a state. Beyond a basic set of data elements, states collect many different elements on their crash reports. Where there are similar data elements, they often have different meanings on different state crash reports. Where they have the same definition, they may have different attributes. Within a state, local police may interpret crash element definitions differently when documenting the same type of event. Reporting thresholds for the types of traffic crash for which data are collected also differ among, and frequently within, most states.

Lack of uniform reporting makes the use and comparison of state crash data tenuous or difficult. The use of different elements or definitions within a state can result in inconsistent data and, potentially, incorrect interpretations of data. The same is true when states have different reporting requirements and dissimilar crash data elements -- accurate comparisons are difficult, and states can not draw on the experience of other states. When analyses use two or more state crash data files, results have to be examined closely to ensure that they are not due to differences in the data collected and coded by these states.

Existing national standards for collecting information about motor vehicle traffic crashes are not uniformly implemented. The *Manual on Classification of Motor Vehicle Traffic Accidents,* the American National Standards Institute (ANSI) Standard D16.1, was developed to "promote uniformity and comparability of motor vehicle accident statistics." ANSI Standard D20.1, *Data Element Dictionary for Traffic Records Systems,* was developed to "provide a common set of coding instructions for data elements related to highway safety..." While the goals of these standards are to promote uniformity and comparability of motor vehicle traffic crash statistics, their use and application is inconsistent between states and even within a state.

States periodically revise their crash reporting forms. In a recent study conducted by the National Association of Governors' Highway Safety Representatives for the National Highway Traffic Safety Administration (NHTSA), eighteen states indicated that they are in the process of revising their crash reporting form, or will revise it, by 2000. Many are being spurred to do so by the availability of new technologies such as hand-held computers for data collection. Others are doing so in an effort to reduce the reporting and processing burden on state and local police agencies. Several states, during their revision process, have contacted NHTSA or the Federal Highway Administration (FHWA) to inquire as to what elements these agencies recommend to be collected on crash reporting forms. At recent national meetings and forums, traffic safety information collectors and users have asked why there are no guidelines for states to use when revising their crash forms or when working with software vendors. The National Safety Council's (NSC) Traffic Records Committee studied the issues related to collection and use of highway safety information and issued a report entitled *A NATIONAL AGENDA for the improvement of highway safety information systems*. Goal VI of the National Agenda calls for establishing and promoting "technical standards of highway safety information systems." It specifically recommends promoting "the use of ... existing standards and other recommended guidelines..."

Section 2002(a) of The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) addressed the issue of collection and reporting by states of data on traffic related deaths and injuries and directed the Secretary to establish a program collecting such information from the states. It stated that, "The purposes of the program are to ensure national uniform data on such deaths and injuries and to allow the Secretary to make determinations for use in developing programs to reduce such deaths and injuries and making recommendations to Congress concerning legislation necessary to implement such programs." The section went on to say that "The Secretary shall establish minimum reporting criteria for the program."

No such criteria or guideline exists. The traffic and highway safety community was asked to respond to the legislative language in Section 2002(a) of the ISTEA by means of a federal regulatory notice. Responders indicated support of uniformity as a concept, but not as a federal requirement. Consequently, a cooperative approach is being pursued to develop a Guideline for Minimum Uniform Crash Criteria (MUCC).

Benefits of MUCC to the Highway Safety Community

A guideline, if adopted by states, would result in a positive return for all levels of users. The advantages of the standardized, statewide elements and definitions introduced by the Guideline include:

- Better support of state and local highway safety programs by providing more consistent and accurate data;
- Accurate and consistent interstate comparisons and analyses;
- Comparable information to more accurately identify where resources could be applied among important programs, provide for better performance measures, and support evaluation of effectiveness of programs;
- Facilitation of linkage to medical outcome and other highway traffic safety related data, thereby helping identify the cost of specific crash, vehicle, roadway and person characteristics and, ultimately, who pays;
- Assistance to states to learn from each other by sharing their successes, identifying their common problems and collaborating on joint program priorities;
- Early identification of emerging problems or issues as changes such as vehicle or highway modifications are implemented; and,
- Uniform data elements and attributes that would facilitate development of common software for crash data entry, access, and analysis.

At the national level, comparable state data would improve NHTSA and FHWA analyses and the collection and coding of information in Federal data systems, most of which are used by state and local agencies, possibly leading to further revisions and economies in how the data are collected.

Guideline Development Process

The development of the Guideline for Minimum Uniform Crash Criteria (MUCC) is a public/private collaborative effort of the highway and traffic safety community. The process is being sponsored by the NAGHSR, FHWA, and NHTSA. Its objective is to provide for the greatest possible input from the highway and traffic safety community, so that the Guideline is perceived not as a product of any one organization, but as something the entire community can claim ownership of. It will not result in any rulemaking on the part of the Federal agencies involved.

The following steps have been accomplished or are planned in the development of the Guideline:

✔ A task group of crash data experts and users from within NHTSA and FHWA with participation from crash data experts from the States of Maryland and Virginia, drafted a "straw model" Guideline which served as a starting point. The elements considered were drawn from a data set presented at a workshop on crash data at the 22nd International Forum on Traffic Records & Highway Safety Information Systems/5th NHTSA Conference on the Analysis of State Highway Safety Data held in July 1996.

✔ The NAGHSR Executive Board endorsed the process and formed a team of state and local experts in the collection, processing, and use of crash data.

✔ The NAGHSR "expert team" met with the task group to review the draft straw model, and developed the ***Draft Guideline for Minimum Standardized Crash Data Reporting,*** which was published jointly by NAGHSR, NHTSA, and FHWA in June 1997.

✔ The draft Guideline was circulated to the following membership groups in the traffic and highway safety community for review and input:

- National Association of Governors' Highway Safety Representatives
- American Association of State Highway Transportation Officials (AASHTO)
- American Association of Motor Vehicle Administrators (AAMVA)
- Commercial Vehicle State Administrations (CVSA)
- State and Territorial Injury Prevention Directors' Association (STIPDA)
- Emergency Medical Services State Directors
- Transportation Research Board's Traffic Records and Accident Analysis Subcommittee (A3B11)
- National Safety Council's Traffic Records Committee
- Motor Carriers Advisory Committee
- NHTSA Regions
- FHWA State and Regional Offices

The draft Guideline was also made available through the NHTSA World Wide Web page.

✔ The NSC Traffic Records Committee endorsed the MUCC process at its Annual Meeting at the 23rd International Forum on Traffic Records & Highway Safety Information Systems in Tucson, AZ, in July 1997.

✔ In cooperation with the NSC Traffic Records Committee, NHTSA, FHWA, and NAGHSR sponsored a National Workshop on July 17 - 18, 1997 at the Loews Ventana Canyon Resort in Tucson, AZ, to review the draft Guideline and provide input for the next draft. The expert panel served as facilitators for this workshop.

✔ Feedback was also received through other modes, e.g., by comments sent directly to the task group/expert team or through the Web Site established on the Internet.

✔ The input received at the National Workshop along with comments received directly or through the Web Site, was reviewed at a meeting of the expert panel held in Washington, DC, in September, 1997. This ***Revised Draft Guideline for Minimum Uniform Crash Criteria (MUCC)*** was developed.

✔ The revised draft is again being jointly published by the NAGHSR, the FHWA and the NHTSA and circulated to membership groups within the highway safety community and to other groups and individuals expressing an interest.

! Comments on the *Revised Draft* may be made until **March 31, 1998.** Each Highway Safety Office is being encouraged to conduct a statewide meeting to discuss the revised guideline and to coordinate input. Comments may be sent:

By mail to: MUCC Comments
NHTSA, NRD-31
400 Seventh Street, S.W., Room 6125
Washington, DC 20590

By FAX to: 202.366.7078

By E-Mail to: MUCCMAIL@nhtsa.dot.gov

! All commenters are being asked to address these questions:

1. Is the Guideline the appropriate minimum data set?

2. Can the data elements be collected by the data collectors in the field?

3. Do the data elements represent a good balance between the data needs and data wants?

4. Is it clear which data elements must be collected at the scene and which can be obtained from linkage or derived?

5. Do the data elements make it possible to evaluate emerging issues such as fatigue, aggressive driver, speed, etc.? Can some data elements be dropped under the assumption that they are more applicable for special studies?

6. Which 3 data elements would be the most difficult for your state to collect? Which data elements cannot be collected because of violation of state statutes?

7. Which potential barriers (discussed in next section) are most applicable to your state and what resources will your state need to overcome them?

8. Should we collect citation and violation codes as part of MUCC?

9. Is it feasible to derive the VIN by linking vehicle plate number to the vehicle registration data file?

! The expert panel will meet in the Spring of 1998 to review all comments and input received. A final version of the MUCC Guideline will be developed at this meeting.

! Publication of the final MUCC Guideline is expected in the late spring or early summer of 1998. It will be distributed jointly by FHWA, NHTSA, and the NAGHSR.

Guideline Development Criteria

Deciding Which Data Elements to Collect

In an effort to standardize only the minimum number of data elements for MUCC, the following criteria were used as the basis for selection.

AN ELEMENT MUST BE APPROPRIATE. It must be needed for highway or traffic safety purposes. Elements which are administrative in nature or have little or no application for highway or traffic safety analysis were not included.

AN ELEMENT MUST BE COMPREHENSIVE. It must include all aspects of the definition.

EACH ELEMENT WILL INCLUDE:

- A **definition**;
- A **set of attribute values**; and,
- A **rationale** (importance to highway safety).

EXISTING STANDARDS DOCUMENTATION WILL BE FOLLOWED. ANSI D16.1, ANSI D20.1, the Fatality Analysis Reporting System (FARS), the General Estimates System (GES), the Critical Automated Data Reporting Elements (CADRE), and the National Governors' Association (NGA)/SafetyNet elements and definitions will be used where applicable. However, modifications to definitions and values may be made to reduce the size of the data set.

THE GUIDELINE WILL PRESENT ONLY THE DATA ELEMENTS. The Guideline will not attempt to organize the proposed data elements and their attribute values into a reporting format. It also will not present coding values for the element values. States have the option of designing the format and content of their police crash report and the most appropriate data collection system and data coding conventions to meet their needs.

THE DATA SET COLLECTED AT THE SCENE WILL BE MINIMAL. Data for analytical purposes will be derived from existing data elements or other data files whenever possible. States have the option to expand the data set to meet state specific needs.

DATA ELEMENTS WILL BE INCLUDED TO FACILITATE LINKAGE TO OTHER DATA SOURCES. Data elements describing the location, date, time, persons involved, and others are important for police to document the events at the scene. When standardized, they are also useful for linking to other state data.

Reporting Thresholds

Background

State data have limitations because of reporting thresholds. When all crashes are not included in a state's file, any analysis is limited by those which are. For example, when only crashes that result in an injured person are included on a statewide database, the lack of information about the uninjured makes it impossible to measure the downward shift from injured to not injured resulting from the implementation of some safety program or safety measure. When the less serious or no injury cases are excluded, the exclusion results in eliminating some of the highway safety success stories and cases for those not affected (persons who do not use the countermeasure and receive no injury). The same is true if the data include only fatalities or even the most seriously injured, such as those persons treated at trauma centers. Also, when states and different agencies within a state choose different levels of property damage for reporting, the mix of crashes in each state will vary. Police vary in their estimate of damage and, over time, the same repair may cost more because of inflation. Finally, regardless of the threshold levels, sometimes the data collector may find it easier to ignore them and avoid the demands of data collection.

Which Crashes Should Be Reported?

From the point of view of the police collecting crash data, less is better. Police officers are responsible for investigating the crash at the scene and documenting information about the crash, vehicles, and persons involved. Police, understandably, resent expanding the scope of data collection to meet users' needs because the extra data are perceived as not related to police functions and as too time consuming.

From the point of view of the evaluator/user, more is better. Information is needed about all crashes and all persons involved to accurately monitor the status of highway safety. Incomplete data greatly limit the usefulness of the state's crash data as a source of information for supporting highway safety program efforts.

Types of Reporting Thresholds

States have initiated reporting thresholds to balance data collection demands with available staff time and funds. Thresholds focus on the type of roadway (public/private), the level of property damage or vehicle damage, the occurrence of an injury, and/or the absence of an injury. Implementation of these threshold criteria is not uniform among the states.

1. **Type of Road**: Most states limit reporting to crashes which occur on public roads. Thus, crashes and/or injuries occurring in private driveways or parking lots are not included in these crash files.

2. **Property or Vehicle Damage**: Most states limit reporting to those crashes that involve $500-$1,000 of property damage and exclude fender benders, perceived as insignificant. Larger states are more likely to choose the higher property damage threshold or even to go beyond property damage to include only those crashes in which at least one vehicle had to be towed away.

3. **Occurrence of Injury**: Almost all states report crashes that involve an injured person as defined by use of a functional measure (KABCO) that indicates need for help from the scene. Information is collected identifying the person by age, sex, injury severity, position in vehicle, vehicle number and whether the person was using safety equipment (belts, helmets, etc.).

4. **Absence of an injury**: In an effort to save time and money, some states do not collect data about the uninjured person involved in a motor vehicle crash.

Recommended Minimum Reporting Threshold

As a minimum, states should collect data for motorists, injured and uninjured, and for nonmotorists involved in crashes in which at least one vehicle is disabled by damage severe enough to prevent driving it.

Data Linkage to Other Data Sources to Minimize Data Collection

This guideline is recommending linkage of the crash data file to other sources of information related to the environment of crash or to the vehicles and people involved in the crash. By collecting the elements which permit linkage to these other data files, the crash data are enhanced without overburdening data collection. The files to be linked are:

- Roadway
- Driver
- Vehicle
- Medical Outcome
  - EMS
  - Emergency Department
  - Hospital Discharge

Crash data alone do not indicate the magnitude of the problem of motor vehicle crashes or the significance of highway safety countermeasures. They do not provide details about the roadway, vehicle, the history of the driver, or the medical and financial consequences for those who are injured. Collection of this information in the crash data are beyond the scope of the police function and would represent a duplication of effort because the data are collected elsewhere.

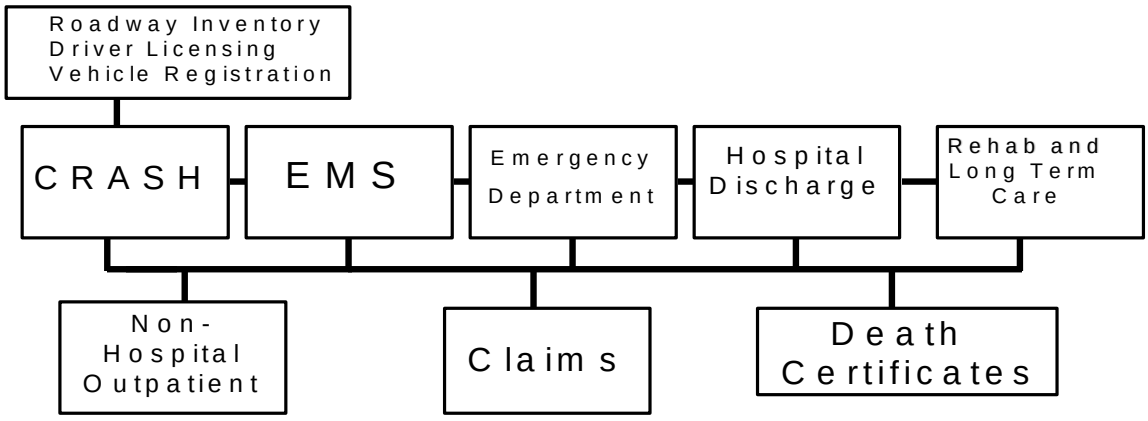
Roadway inventory, driver licensing, vehicle registration, EMS, emergency department, hospital, death certificate, census and other state data contain information related to motor vehicle crashes. Some of the data, such as the driver licensing, vehicle registration, and roadway inventory files are collected routinely rather than at the time of the crash. Other data, such as the crash and injury records are collected at the time of the crash at the scene, en route, at the emergency department, in the hospital, and after hospital discharge. Together these various data sources provide information about the environment surrounding the crash event, the circumstances of the crash, and the medical and financial consequences for those persons who are injured. When these files are linked, as indicated in the diagram below, it is possible to describe in detail the components of a crash and the events at the scene and to follow the persons injured in

the crash from the scene through the health care system. Linked data make it possible to determine who is at risk, at what cost and the factors that make a difference to injury outcome. (See Appendix G)

Example of a Data Linkage System

An example of data linkage is the Crash Outcome Data Evaluation System project which evolved from the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). ISTEA mandated that the National Traffic Safety Administration (NHTSA) prepare a Report to Congress about the benefits of safety belt and motorcycle helmet use. To obtain the crash and injury outcome information needed for this report, NHTSA sponsored the CODES project, awarding grants to Hawaii, Maine, Missouri, New York, Pennsylvania, Utah, and Wisconsin. Each grantee linked the available state crash, EMS, emergency department, hospital discharge, insurance, and other traffic records and performed uniform analyses of the effectiveness of safety belts and motorcycle helmets. The Report was delivered to Congress in February, 1996.

Figure 1: Example of Linked Data System



Benefits of Linkage

Data linkage expands the usefulness of each data file being linked without the delay and expense of new data collection. Linkage makes it possible to evaluate the relationship of specific roadway, crash, vehicle, and human factors at the time of a motor vehicle crash. It also permits these specific factors to be linked to health outcome data to determine their medical and financial consequences. Understanding what increases injury severity and health care costs facilitates choosing safety priorities that have the most impact on reducing death and disability. This information is particularly useful for decision making by safety program managers, engineers and state legislators. At the same time, the linkage process itself improves the quality of state data and promotes collaboration between the traffic safety, highway safety and injury control communities.

Voluntary Implementation of the Guideline

In its final form, this Guideline will be available to assist states in the process of revising their crash reporting forms and crash data processing systems. Except for the data elements required by the Office of Motor Carriers, implementation of the data elements included in the Guideline will be voluntary and according to state-specific specifications without any mandates by either NHTSA or FHWA. Instead, FHWA and NHTSA will encourage and support:

- Development of curriculum for training programs to present the Guideline, discuss its various components, describe how it would be used in a crash data system, and demonstrate its usefulness to highway safety;

- Investigation of the feasibility of implementing the Guideline using computerized data collection devices; and,

- Development of standardized data analysis and reporting programs using data from a system based on the Guideline.

Potential Barriers and Their Solutions at the State Level

At the July 1997 National Workshop on MUCC, participants identified several areas which they considered to be barriers to implementation of the Guideline. The discussion then identified possible solutions which could be implemented by the various local, state, and Federal agencies with an interest in seeing MUCC adopted. The following items summarize that discussion:

- MUCC is too time consuming for the police to collect at the scene.

  Many MUCC data elements and attribute values match data already being collected by police in most states. Electronic data collection technology has the potential of saving time while making the data more timely at local, regional, and state levels for management, feedback, and analyses. Implementing reporting thresholds to exclude the uninjured and/or minor crashes greatly limits the usefulness of the data that are collected. Collaboration with American Association of Motor Vehicle Administrators (AAMVA), American Association of State Highway Transportation Officials (AASHTO), International Association of Chiefs of Police (IACP), Institute of Transportation Engineers (ITE), Society of Automotive Engineers (SAE), Association of State and Community Engineers (ASCE) and other organizations is important to broaden MUCC beyond the safety focus so that duplicate data collection is eliminated at the same time that users needs are met.

! MUCC is too expensive for states to implement.

Many states are using adjustments for the year 2000 as justification for revising their computerized data systems. For some, existing legacy systems make the process expensive and complicated but new state-of-the-art technology may overcome the limitations of these systems. Vendors are expected to play a large role in the standardization effort by incorporating MUCC into the software the states plan to buy. Successful implementations of MUCC can be identified, publicized and made available in a NHTSA/FHWA technology clearinghouse as models for states to evaluate and consider implementing. (In fact a Technology Clearinghouse has been established and can be accessed through the internet at www.iacptechnology.org)

! Funding sources are limited for implementing MUCC.

States and local agencies need incentives to implement MUCC. Although Congress might eventually increase funding for traffic records in the near future, collaboration is needed in the traffic records community to market the value of MUCC to members of Congress and at the state and local level. Lack of adequate funding sources increases the competition for those that do exist. States need to collaborate with one another and adopt a win-win approach with their major users to collaboratively obtain the necessary funds and staff resources. To encourage multi-agency cooperation, state user groups should be convened (as recommended in Goal II of the NSC's National Agenda) as an inexpensive mechanism for sharing expertise and receiving technical assistance in traffic records and data linkage from NHTSA. Traffic records assessments should be expanded to include a focus on MUCC.

! MUCC is too difficult to implement.

Political conflicts can be minimized by developing routine, user friendly, and useful feedback to the data collectors. Regular in-service training about how to interpret feedback information will help the data collectors understand the value of MUCC. Implementation of MUCC can be facilitated by incorporating it into the existing routine training provided to police and highway safety analysts. Developing a process to update ANSI Standards D16.1 and D20.1 on a regular basis will help to implement and maintain standardized minimum uniform crash criteria.

! Concerns about liability may inhibit implementation of MUCC

Access to crash data files based on MUCC should be restricted for highway safety and injury control purposes. Protocols and model legislation for confidential access should be standardized nationally to prevent confusion. Appropriate Transportation Research Board committees should be used to investigate and communicate the liability issues to those involved. However, access to sensitive information should be improved for those who need to know. Some MUCC data should be aggregated for public use through the Internet and routine feed-back.

Data users should be encouraged to make presentations and sponsor information booths at conferences so that the usefulness of MUCC data becomes well known.

Analysis of Current Use of MUCC Recommended Variables:

Even though obstacles exist, the good news is that of the 108 data elements included in the MUCC in this draft Guideline, about 58 data elements are included in the crash data files of the seventeen states in NHTSA's National Center for Statistics and Analysis's State Data System. In this system crash data files from seventeen states are obtained each year and converted to Statistical Analysis System (SAS) format for use by NHTSA data analysts. An analysis of these seventeen state data files found that:

Approximately 15 out of the recommended 19 **crash level** MUCC elements (80 percent) already exist on most of the seventeen states' crash data files.

  On average, the seventeen states collect a total of 35 crash level variables.

Approximately 15 out of the recommended 27 **motor vehicle level** MUCC elements (58 percent) already exist on most of the seventeen states' crash data files.

  On average, the seventeen states collect a total of 40 motor vehicle level elements.

Approximately 16 out of the recommended 28 **person level** MUCC elements (57 percent) already exist on most of the seventeen states' crash data files.

  On average, the seventeen states collect a total of 25 person level elements.

Approximately 4 out of the recommended 7 **crash derived data elements** MUCC elements(57 percent) already exist on most of the seventeen states' crash data files.

All of the recommended **vehicle derived data elements** MUCC elements already exist on most of the seventeen states' crash data files.

Nine of the seventeen states in the State Data System include VIN information on their state crash data files.

Organization of the Guideline

The data elements are classified into four major categories--crash, vehicle, person, and roadway--and organized into three sections according to whether the data are obtained at the scene, derived, or linked. Data collected by the police at the scene are recorded directly onto the crash report. Data derived by the data managers at the state level are generated from data elements that have already been collected and computerized. Linked data are generated after the crash data file has been linked to other data files such as injury, licensing, registration, or roadway inventory.

Note: One of the values listed under many of the elements to be collected at the scene is "not reported." This value is not collected at the scene but is to be coded on an analytic file created from crash reports. It signifies that no value was reported for that element, even though one may have been expected. It differs form the value "Unknown" which is recorded by the police officer when he/she is unable to ascertain the correct coding for that element.

Each type of data element has a unique identifier. Crash data element numbers are preceded with a "C"; Vehicle data element numbers are preceded with a "V"; Person data element numbers are preceded with a "P", and Roadway data elements are preceded with a "R". When the data element is derived, the letter "D" is added. When the data element is linked, the letter "L" is added.

Some data elements are marked with a double asterisk **. These data elements currently are mandated by the Office of Motor Carriers for crashes involving commercial vehicles under their regulation.

Some data element values are marked with a number in a parenthesis (#.#.#). The numbers refer to the location of the same data element value in *ANSI D16.1-1996 Manual on Classification of Motor Vehicle Traffic Accidents.*

Each data element is presented using the following format:

(C,V,P,or R)(D or L)# Data Element Name

Definition: Definition of the data element (#.#.#)

Code: Attributes (#.#.#)

Rationale: Justification for including the data element

Note: ANSI D-20 and D16.1 data element names, definitions, and values were used whenever possible. In some cases the attributes were modified to clarify or simplify the data collection and use of the information.

LIST OF MINIMUM UNIFORM CRASH CRITERIA ELEMENTS

Minimum Uniform Crash Criteria

Motor Vehicle Crash

A motor vehicle crash involves a motor vehicle in transport resulting in an unstabilized situation which includes at least one harmful event. An unstabilized situation is a set of events not under human control and originates when control is lost and terminates when control is regained or when all persons and property are at rest.

Motor Vehicle Crash Level

The crash level data elements describe overall characteristics of the crash.

Crash Data Elements Collected at the Scene

C1. **Crash Case Identifier**

Definition: The unique identifier within a given year that identifies a given crash.

Code: State specific identifier

Rationale: Facilitates linkage of traffic record sub-files back to the crash data file. If this identifier is available at the scene, it can also be recorded on the EMS record for linkage purposes.

C2. **Crash Date and Time**

Definition: The date (year, month, and day) and time (hour and minute) at which a crash occurred.

Code: YYYYMMDDHHMM (See Appendix B)

Rationale: Important for management/administration, evaluation, and linkage

C3. **Crash County**

Definition: The code identifying the county in which a crash occurred.

Code: Federal Information Processing Standards #6-4 (FIPS) Code for county (Pub 55DC-4/87). If state specific codes are used, they should be convertible to the FIPS format. (FIPS Codes are too voluminous to include.)

Rationale: Important for analyses of county area programs such as “Safe Communities.” Critical for data linkage of the crash file to other state

data files (such as EMS, hospital, roadway, etc.). Important for intrastate comparisons.

C4. **Crash City/Place**

Definition: The code identifying the city/place in which a crash occurred.

Code: Federal Information Processing Standards #8-6 (FIPS) Code for city or place (Pub 55DC-4/87). If state specific code used, it should be convertible to the FIPS format.

Rationale: Important for analyses of local area programs such as "Safe Communities." Critical for data linkage of the crash file to other state data files (such as EMS, hospital, roadway, etc.).

C5. **Crash Roadway Location**

Definition: Exact location on the roadway indicating where the crash occurred.

Code: The optimum definition of crash roadway location is a GPS (Global Positioning System)/GIS (Geographic Information System) that gives a latitude/longitude for a specific crash location. States without GPS/GIS should indicate location using their current system. (See Appendix G for options)

Rationale: Important for problem identification, prevention programs, engineering evaluations, and linkage purposes.

C6. **First Harmful Event**

Definition: The injury or damage producing event which characterizes the crash type and identifies the nature of the first harmful event, such as an explosion in the vehicle.

Code:
- Noncollision (2.6.3)
  - Overturn (2.6.1)
  - Jackknife (2.6.4)
  - Other noncollision
- Collision with object not fixed (2.6.2)
  - Pedestrian (2.6.5)
  - Pedalcycle (2.6.10, 2.2.27)
  - Railway vehicle (e.g., train, engine) (2.6.9)
  - Animal (2.6.11)
  - Motor vehicle in transport (2.6.6)
  - Parked motor vehicle (2.6.8)
  - Work zone maintenance equipment
  - Other non-fixed object (2.6.7)
- Collision with fixed object (2.6.12)
  - Bridge/culvert
  - Guardrail/median barrier

Utility pole/light support
Embankment/ditch/curb
Tree
Other fixed object
Unknown fixed object
Not reported
Unknown

Rationale: Needed for uniformity in reported road vehicle crash statistics, understanding crash causation, and identifying possible crash avoidance countermeasures. For analytic purposes it may be desirable to collect and use information about subsequent events, some of which may be harmful. (See element V20.)

C7. **Relation to Roadway**

Definition: The location of the First Harmful Event as it relates to its position within or outside the trafficway.

Code: Roadway (2.7.1)
Shoulder (2.2.32)
Median (2.2.29)
Roadside (2.2.31)
Not reported
Unknown

Rationale: Important to identify highway geometric deficiencies.

C8. **Manner of Impact**

Definition: The identification in a crash of the manner in which two vehicles in transport initially came together without regard to the direction of force.

Code: Not collision between two vehicles in transport
Rear-end
Head-on
Rear-to-rear
Angle
Sideswipe, same direction
Sideswipe, opposite direction
Not reported
Unknown

Rationale: Important for evaluation of occupant injuries and structural defects. This data element can be used in conjunction with Vehicle Maneuver/Action (V18) to describe the crash.

C9. **Force of Collision**

Definition: The direction of the force in a crash which caused the two vehicles to come together.

Code: Not collision between two vehicles in transport
Rear-end
Head-on
Angle
Sideswipe, same direction
Sideswipe, opposite direction
Not reported
Unknown

Rationale: Important for evaluation of occupant injuries and structural defects. This data element can be used in conjunction with Vehicle Maneuver/Action (V18) to describe the crash.

C10. **Source of Information**

Definition: Identity of the source providing the information on the crash report.

Code: Subfield 1: Source of Information
Police agency
Motorist
Other
Subfield 2: Police Reporting Agency Identifier
Subfield 3: Type of Police Agency
State police/highway patrol
City police
Sheriff department
Other

Rationale: This data element is important for quality control and identification purposes. The Police Reporting Agency Identifier is used to track the reporting of Safetynet crashes for quality control and training purposes.

C11. **Date and Time Crash Reported to Police Agency**

Definition: The date and time at which the call was placed notifying the police agency about the crash.

Code: YYYYMMDDHHMM

Rationale: Useful as a surrogate for time of the crash.

C12. **Weather Condition**

Definition: The prevailing atmospheric conditions that existed at the time of the crash.

Code:
Clear
Cloudy
Fog, smog, smoke
Rain
Sleet, hail (freezing rain or drizzle)
Snow
Severe crosswinds
Blowing sand, soil, dirt, snow
Other
Not reported
Unknown

Rationale: Important for management/administration and evaluation. Critical for preventive programs and engineering evaluations.

C13. **Ambient Light**

Definition: The type of light that exists at the time of a motor vehicle crash.

Code:
Daylight
Dawn
Dusk
Dark - lighted roadway
Dark - roadway not lighted
Dark - unknown roadway lighting
Other
Not reported
Unknown

Rationale: Important for management/administration and evaluation. Critical for preventive programs and engineering evaluations.

C14. **Road Surface Condition**

Definition: The roadway surface condition at the time and place of a crash.

Code:
Dry
Wet
Snow
Ice
Sand, mud, dirt, oil, gravel
Water (standing, moving)
Slush

Other
Not reported
Unknown

Rationale: Important to identify and correct high wet-surface crash locations and provide information for setting coefficient of pavement friction standards. Critical for prevention programs and engineering evaluations.

C15. **Contributing Circumstances, Environment**

Definition: Apparent environmental conditions which contributed to the crash.

Code: None
Weather conditions
Physical obstruction
Glare
Animal in roadway
Other
Not reported
Unknown

Rationale: Important to determine existence of unusual conditions that could be useful in determining the need for additional traffic control devices or geometric improvements.

C16. **Contributing Circumstances, Road**

Definition: Apparent condition of the road which contributed to the crash.

Code: None
Road surface condition (wet, icy, snow, slush, etc.)
Debris
Rut, holes, bumps
Work zone (construction/maintenance/utility)
Worn, travel-polished surface
Obstruction in Roadway
Traffic control device inoperative or missing
Shoulders (none, low, soft, high)
Non-highway work
Other
Not reported
Unknown

Rationale: Important to determine highway maintenance and possible engineering needs.

C17. **Type of Roadway Junction**

Definition: A junction is either an intersection or the connection between a driveway access and a roadway other than a driveway access. (2.5.11)

Code:
Not at junction
Four-way intersection
T-intersection
Y-intersection
Traffic circle/roundabout
Five-point, or more
On ramp
Off ramp
Crossover
Driveway (2.5.9)
Railway grade crossing
Shared-use paths or trails
Not reported
Unknown

Rationale: Important for site specific safety studies to identify actual or potential safety problem locations.

C18. **School Bus Related**

Definition: Indicates if a school bus is related to the crash. The “school bus”, with or without a pupil on board, must be directly involved as a contact vehicle or indirectly involved as a noncontact vehicle. A “school bus” is a yellow vehicle, with the name “school bus” on the front and rear and lettering on both sides identifying the school, school district served, or company operating the bus. (2.8.1, 2.8.2)

Code:
No
Yes, school bus directly involved
Yes, school bus indirectly involved
Not reported
Unknown

Rationale: Important in determining where and how school children are at the greatest risk of injury when being transported by school bus and the extent to which school bus operations affect overall traffic safety.

C19. **Work Zone Related**

Definition: A crash which occurs in or near a construction, maintenance or utility work zone as designated by the state, whether active or inactive.

Code: Subfield 1: Was crash located in or near a construction, maintenance or utility work zone.

No
Unknown
Yes (complete subfields 2-4)

Subfield 2: Location of crash

Advance warning area
Transition area
Adjacent to activity area
Activity area
Termination area

Subfield 3: Type of work zone

Lane closure
Lane shift/crossover
Work on shoulder or median
Intermittent/moving work
Other

Subfield 4: Workers present

Yes
No
Unknown

Rationale: This data element needs to be collected at scene because work zones are relatively short term or moving operations that are not recorded in permanent road inventory files. The information is important for assessing the impact of various types of on-highway work activity on traffic safety and evaluating Traffic Control Plans used at work zones and to make adjustments to the traffic control plans to enhance safety to workers and traveling public.

Motor Vehicle Level

The motor vehicle data elements describe the characteristics, events, and consequences of the motor vehicle involved in the crash.

Vehicle Data Elements Collected at the Scene

V1. **Vehicle Unit Number**

Definition: Number assigned to uniquely identify within the crash each vehicle involved in the crash.

Code: Sequential number

V2. **Vehicle Registration State and Year**

Definition: The state, commonwealth, territory, Indian nation, U.S. Government, foreign country, etc. issuing the registration plate and the year of registration as indicated on the registration plate displayed on the vehicle. For foreign countries, MUCC requires only the name of the country. Border states may want to collect the name of individual Canadian Provinces or Mexican States.

Code: Identifier of the state, foreign country, U.S. government, Indian Nation, etc. (See Appendix A) and YYYY for the year

Rationale: This element is critical in providing linkage between the crash and vehicle registration files to access the vehicle identification number.

V3. **Vehicle License Plate Number**

Definition: The alphanumeric identifier or other characters, exactly as displayed, on the registration plate or tag affixed to the vehicle. For combination trucks, vehicle plate number is obtained from the power unit or tractor.

Code: Alphanumeric identifier assigned by the state, foreign country, U.S. government, Indian Nation

Rationale: This element is critical in providing linkage between the crash and vehicle registration files to access the vehicle identification number.

V4. **Vehicle Make**

Definition: The distinctive (coded) name applied to a group of vehicles by a manufacturer.

Code: Assigned by vehicle manufacturer

Rationale: Important for use in identifying vehicle make, for evaluation, research and crash comparison purposes.

V5. **Trailer Registration State and Year**

Definition: The state, commonwealth, territory, Indian nation, U.S. Government, foreign country, etc. issuing the registration plate and the year of registration as indicated on the registration plate displayed on the trailer. For foreign countries, MUCC requires only the name of the country. Border states may want to collect the name of individual Canadian provinces or Mexican States.

Code: Identifier of the state, foreign country, U.S. government, Indian Nation, etc. (See Appendix A) and YYYY for the year

Rationale: This element is critical in providing linkage between the crash and vehicle registration files to access the vehicle identification number.

V6. **Trailer License Plate Number**

Definition: The alphanumeric identifier exactly as displayed, on the registration plate or tag affixed to the trailer.

Code: Alphanumeric identifier assigned by the state, foreign country, U.S. government, Indian Nation

Rationale: This element is critical in providing linkage between the crash and vehicle registration files to access the vehicle identification number.

V7. **Carrier Name****

Definition: The name of an individual, partnership or corporation responsible for the transportation of persons or property.

Code: Subfield 1: Carrier Name
See Appendix C
Subfield 2: Carrier Name Source
Shipping papers (truck) or trip manifest (bus) or logbook
Other
Not reported
Unknown

Rationale: The Federal Highway Administration's Office of Motor Carriers has the authority to fine and sanction truck and bus companies that are judged to be unsafe. A key way to identify such carriers is to collect crash data by the name of the company. Carrier crash data allows the OMC to focus enforcement efforts on truck and bus companies that have the largest number of crashes.

V8. **Carrier Street Address****

Definition: The street address of the carrier

Code: See Appendix D

Rationale: Since the Office of Motor Carriers has the authority to visit carriers to conduct review of compliance with FMCSRs, the street address of the carrier is important. The street address is also a way to cross-check the correct identity of the carrier.

V9. **Carrier Identification Number****

Definition: A unique number, found on the power unit, and assigned by the U.S. Department of Transportation, Interstate Commerce Commission, or by the state to a motor carrier.

Code: Subfield 1: Identification Number
Subfield 2: Issuing Authority
- US DOT
- ICC
- State
- Mexico
- Canada

Subfield 3: Source of Number
- Shipping papers (truck) or trip manifest (bus) or logbook
- Other
- Not reported
- Unknown

Rationale: Important for management/administration, evaluation, and linkage.

V10. **Vehicle Configuration****

Definition: Indicates the general configuration of vehicle.

Code:
- Passenger car
- Light truck(van, mini-van, panel, pickup, sport utility) with only four tires
- Single-unit truck (2-axle, 6-tire)
- Single-unit truck (3-or-more axles)
- Truck/trailer (2.2.21)
- Truck tractor (bobtail) (2.2.19)
- Tractor/semi-trailer (2.2.17)
- Tractor/doubles (2.2.20)
- Tractor/triples (2.2.21)
- Unknown heavy truck, cannot classify
- Motor home/recreational vehicle

Motorcycle (2.2.9)

Bus (seats for more than 15 people, including driver)
Bus (seats for 7 - 15 people, including driver)
Other
Not reported
Unknown vehicle configuration

Rationale: This data element provides information about the general configuration of the vehicle which is important to evaluate the types of vehicles that have the most crashes and the effectiveness of various safety countermeasures. It should be collected for all crashes, not just those involving trucks.

V11. **Cargo Body Type****

Definition: Coded for buses and trucks over 10,000 pounds GVWR.

Code: Not applicable
Bus (seats for more than 15 people, including driver)
Bus (seats for 7 - 15 people, including driver)
Van/enclosed box
Grain/chips/gravel truck
Pole truck
Cargo tank
Flatbed
Dump
Concrete mixer
Auto transporter
Garbage/refuse
Other
Not reported
Unknown

Rationale: This data element provides more information about the vehicle, including all major cargo body types. The information it provides can be important in helping OMC make decisions on regulatory strategies for different types of vehicles.

V12. **Weight Rating of Power Unit**

Definition: A gross vehicle weight rating is a value specified by the manufacturer for a single-unit truck, truck tractor or trailer, or the sum of such values for the units which make up a truck combination. (2.2.23)

Code: Weight Rating of Power Unit of the Truck
less than or equal to 10,000 pounds
10,001-26,000
more than 26,000

Rationale: Two break points used for FHWA regulation of motor carriers and their vehicles. This variable cannot be derived since some trucks are from out-of-state.

V13. **Vehicle Adaptive Equipment or Modifications**

Definition: The presence of adaptive equipment, other than that supplied by the OEM, which accomodates the vehicle functions to the capabilities of a person with disabilities. This may be for either a driver or passenger. Examples include: steering control device mounted on the steering wheel, hand controls, wheelchair lift or ramp, wheelchair tie down, additional or relocated switches for secondary controls (lights, wipers, etc).

Code: No -- adaptive equipment/modifications not observed
Yes -- adaptive equipment/modifications observed
Not reported
Unknown if adaptive equipement/modifications present

Rationale: Collection of accurate information on the size and nature of the automotive safety problem for persons with disabilities is needed to monitor this safety problem. Currently the only crash data base which includes a variable for adaptive equipment is NASS-CDS.

V14. **Total Occupants In Vehicle**

Definition: The total number of occupants in this vehicle involved in the crash, including persons in or on the vehicle at the time of the crash. (2.2.35)

Code: Total number of occupants including the driver
Unknown

Rationale: Important for use in evaluating total involved in crash and injury/severity.

V15. **Vehicle Role**

Definition: Indicates vehicle role in single and multi-vehicle crashes. Role does not imply fault.

Code: Noncontact (2.4.8)
Noncollision (2.6.3)
Striking
Struck
Both striking and struck
Not reported
Unknown

Rationale: Important to determine role of vehicle in a crash for management, research and evaluation of crash/injury severity.

V16. **Emergency Use**

Definition: Indicates vehicles, such as military, police, ambulance, fire, etc., which are on an emergency response. Emergency refers to a vehicle that is traveling with physical emergency signals in use; typically red light blinking, siren sounding, etc. Code yes only if the vehicle was on an emergency response.

Code:
No
Yes
Not reported
Unknown

Rationale: Important for determining if vehicles on emergency runs are over involved in crashes.

V17. **Hazardous Materials Involvement (Cargo Only)** **

Definition: Indication that a motor vehicle had a hazardous materials placard as required by federal regulations

Code:
Subfield 1: Did this vehicle have a hazardous materials placard?
Yes
No
Not reported
Unknown
Subfield 2: If yes, record from the hazardous materials placard:
(1) 4-digit placard number or name taken from the middle of the diamond or from the rectangular box; and
(2) 1-digit placard number from bottom of diamond
Subfield 3: Hazardous Materials, Cargo Released from the Cargo Compartment
Yes - hazardous materials released
No - hazardous materials not released
Not reported
Unknown

Rationale: Getting good data on crashes involving trucks carrying hazardous materials (HM) is important to the OMC. As a result, OMC imposes tighter regulations on carriers that operate vehicles that transport HM, pulls over sample HM carrying vehicles for roadside inspections, and conducts compliance reviews on a higher percent of HM carriers. This data element asks the reporting officer to observe: (1) whether or not the vehicle has a hazardous material placard, (2) record what

is on the placard and (3) indicate if the hazardous spilled out of the cargo compartment. By recording this information, the FHWA will obtain good information about the types of hazardous materials involved in a crash and the crash scenes which were potential hazards because HM material escaped its packaging.

V18. **Vehicle Authorized Speed Limit**

Definition: Authorized speed limit for the vehicle at the time of the crash. The authorization may be indicated by the posted speed limit, blinking sign at construction zones, etc.

Code: Subfield 1: Authorized Value

Subfield 2: Unit of Measurement
Miles per hour
Kilometers per hour
Not applicable
Unknown

Rationale: Important for evaluation purposes in spite of the fact that the speed of the vehicle at the time of the crash may differ significantly from the authorized speed limit.

V19. **Direction of Travel Before Crash**

Definition: The direction of a vehicle's normal, general travel on the roadway before the crash. Notice that this is not a compass direction but a direction consistent with the designated direction of the road. For example, the direction of a state designated north-south highway must be either northbound or southbound even though a vehicle may have been traveling due east as a result of a short segment of the highway having an east-west orientation.

Code: Northbound
Southbound
Eastbound
Westbound
Not on roadway
Not reported
Unknown

Rationale: Important to indicate direction the vehicle was traveling before the crash for evaluation purposes.

V20. **Traffic Control Device Type**

Definition: The type of traffic control, if any, at a crash location. This element needs to be collected at the scene because the presence of specific devices is better verified at the time of the crash.

Code:
No controls
Traffic control signal
Flashing traffic control signal
School zone signs
Stop signs
Yield signs
Warning signs
Railway crossing device
Not reported
Unknown

Rationale: Important for ascertaining the relationship between the use of various TCDs and crashes and identifying the need for upgraded TCDs at specific crash locations.

V21. **Vehicle Maneuver/Action**

Definition: What the vehicle was doing prior to the crash.

Code:
Movements essentially straight ahead
Backing
Changing lanes
Overtaking/passing
Turning right
Turning left
Making u-turn
Entering traffic lane
Leaving traffic lane
Parked
Slowing or stopped in traffic
Other
Not reported
Unknown

Rationale: Important for evaluation purposes, particularly when combined with **Direction of Travel.**

V22. **Point of Impact**

Definition: The portion of the vehicle that impacted first in a crash.

Code: See Appendix E

Rationale: Important for use in evaluating injury severity in relation to vehicle impact and crash severity.

V23. **Sequence of Events**

Definition: The events in sequence for this vehicle.

Code: Subfield 1: First Event

- Noncollision (2.6.3)
  - Overturn/rollover (2.6.1)
  - Fire/explosion
  - Immersion
  - Jackknife (2.6.4)
  - Cargo/equipment loss or shift
  - Equipment failure (blown tire, brake failure, etc.)
  - Separation of units
  - Ran off road
  - Downhill runaway
  - Other noncollision
  - Unknown noncollision
- Collision with object not fixed (2.6.2)
  - Pedestrian (2.6.5)
  - Pedalcycle (2.6.10, 2.2.27)
  - Railway vehicle (e.g., train, engine) (2.6.9)
  - Animal (2.6.11)
  - Motor vehicle in transport (2.6.6) not in other roadway
  - Motor vehicle in transport in other roadway
  - Parked motor vehicle (2.6.8)
  - Other movable object (2.6.7)
  - Unknown movable object
- Collision with fixed object (2.6.12)
  - Impact attenuator/crash cushion
  - Bridge overhead structure
  - Bridge pier or abutment
  - Bridge parapet end
  - Bridge rail
  - Guardrail face
  - Guardrail end
  - Median barrier (2.2.29)
  - Highway traffic sign post
  - Overhead sign support
  - Light/luminaire support
  - Utility pole
  - Other post, pole, or support
  - Culvert
  - Curb
  - Ditch

Embankment
Fence
Mail box
Tree
Other fixed object (wall, building, tunnel, etc.)
Unknown fixed object
Other (2.6.13)
Not reported
Unknown
Subfield 2: Second Event
See Codes in Subfield 1
Subfield 3: Third Event
See Codes in Subfield 1
Subfield 4: Fourth Event
See Codes in Subfield 1

Rationale: Important for use in conjunction with most harmful event to generate complete information about the crash.

V24. **Most Harmful Event for this Vehicle**

Definition: Event which produced the greatest property damage or or most severe injury caused by this vehicle.

Code: Noncollision (2.6.3)
Overturn/rollover (2.6.1)
Fire/explosion
Immersion
Jackknife (2.6.4)
Cargo/equipment loss or shift
Equipment failure (blown tire, brake failure, etc.)
Separation of units
Ran off road
Downhill runaway
Other noncollision
Unknown noncollision
Collision with object not fixed (2.6.2)
Pedestrian (2.6.5)
Pedalcycle (2.6.10, 2.2.27)
Railway vehicle (e.g., train, engine) (2.6.9)
Animal (2.6.11)
Motor vehicle in transport (2.6.6) not in other roadway
Motor vehicle in transport in other roadway
Parked motor vehicle (2.6.8)
Other movable object (2.6.7)
Unknown movable object
Collision with fixed object (2.6.12)
Impact attenuator/crash cushion
Bridge overhead structure

Bridge pier or abutment
Bridge parapet end
Bridge rail
Guardrail face
Guardrail end
Median barrier (2.2.29)
Highway traffic sign post
Overhead sign support
Light/luminaire support
Utility pole
Other post, pole, or support
Culvert
Curb
Ditch
Embankment
Fence
Mail box
Tree
Other fixed object (wall, building, tunnel, etc.)
Unknown fixed object
Other (2.6.13)
Not reported
Unknown

Rationale: Important for use in conjunction with the sequence of events (see data element V22) to generate complete information about the crash.

V25. **Underride/Override**

Definition: An underride refers to a vehicle sliding under another vehicle during a crash. An override refers to a vehicle riding up over another vehicle. Both can occur with a parked vehicle.

Code: Subfield 1:
Underride
Override
No underride or override
Unknown if underride or override
Subfield 2:
Compartment intrusion
No compartment intrusion
Compartment intrusion unknown

Rationale: This information is needed to identify the magnitude of crashes in which an underride or override occurs to support NHTSA rulemaking activities.

V26. **Most Damaged Area**

Definition: The location of most damage on vehicle and extent of total damage to vehicle from crash

Code: See Appendix E

Rationale: Important for evaluation in particular in conjunction with speed and vehicle crash severity.

V27. **Extent of Damage**

Definition: Estimation of total damage to vehicle from crash

Code:
None
Functional damage
Disabling damage
Severe/vehicle totaled
Not reported
Unknown

Rationale: Determining whether a vehicle sustained disabling damage from a crash is key to consistent collection of crash data.

Person Level

The person data elements describe the characteristics, actions, and consequences to the persons involved in the crash.

Person Data Elements Collected at the Scene

Level 1: All Persons Involved

P1. **Date of Birth**

Definition: The year, month, and day of birth of person involved in a crash.

Code: YYYYMMDD

Rationale: Uses of accurate reporting of age include assessing effectiveness of occupant protection systems for specific age groups, and identifying the need for safety programs directed toward them. This element is also critical in providing linkage between the crash, EMS, and hospital records.

P2. **Sex**

Definition: The sex of person involved in a crash.

Code: Male
Female
Not reported
Unknown

Rationale: Necessary to evaluate the effect of gender on occupant protection systems and vehicle design characteristics.

P3. **Person Type**

Definition: Type of person involved in a crash.

Code: Driver (2.2.37)
Passenger (2.2.38)
Nonmotorist (2.2.41)
Not reported
Unknown

Rationale: Need to know person type for classification purposes to evaluate specific countermeasure designed for specific people.

P4. **Injury Status**

Definition: The most severe injury to the person involved in a crash.

Code:
Fatal Injury (K) (2.3.2, 3.1.3)
Nonfatal Injury (2.3.1)
- Incapacitating (A) (2.3.4)
- Nonincapacitating (B) (2.3.5)
- Possible (C) (2.3.6)

No injury (O)
Not reported
Unknown

Rationale: Necessary for injury outcome analysis and evaluation. This element is also critical in providing linkage between the crash, EMS, and hospital records. Injury severity as indicated by KABCO is also desirable for states to collect.

Level 2: All Occupants

P5. **Occupant's Vehicle Unit Number**

Definition: The number assigned to the vehicle in which this person was an occupant.

Code: Number to indicate in which vehicle the occupant was located.

Rationale: Important to link occupants back to vehicles in which they were involved. Necessary to evaluate the effect vehicle type and specific make/model have on occupant protection effectiveness and injury status.

P6. **Seating Position**

Definition: The location for this occupant in, on, or outside of the motor vehicle prior to the impact of a crash

Code:
Front seat - left side (or motorcycle driver)
Front seat - middle
Front seat - right side
Second seat - left side (or motorcycle passenger)
Second seat - middle
Second seat - right side
Third row - left side (or motorcycle passenger)
Third row - middle
Third row - right side

Sleeper section of cab (truck)
Passenger in other enclosed passenger or cargo area (non-trailing unit such as a bus, etc.)
Passenger in unenclosed passenger or cargo area (non-trailing unit such as a pickup, etc.)
Trailing unit
Riding on vehicle exterior (non-trailing unit)
Not reported
Unknown

Rationale: Without known seating position for each person in the vehicle, it is not possible to fully evaluate the effect of occupant protection programs.

P7. **Occupant Protection System Use**

Definition: The restraint equipment in use by occupant at the time of the crash, or the helmet use by a motorcyclist.

Code: None used - vehicle occupant
Shoulder belt only used
Lap belt only used
Shoulder and lap belt used
Child safety seat used
Helmet used
Not reported
Restraint use unknown

Rationale: Proper classification of the use of available occupant protection systems would be used to evaluate the effectiveness of such equipment.

P8. **Air Bag Deployed**

Definition: Deployment status of an air bag relative to position of the occupant.

Code: Subfield #1: Deployment
- Deployed-front
- Deployed-side
- Deployed-both front/side
- Not-deployed
- Not applicable
- Not reported
- Deployment unknown

Subfield #2: Switch Status
- Switch in ON position
- Switch in OFF position
- ON-OFF switch not present

Unknown if ON-OFF switch present
Not reported
Unknown position

Rationale: Necessary to evaluate the effectiveness of air bags and other occupant protection equipment, especially at a time when air bags are rapidly increasing in the vehicle population and when consumers are allowed to have the air bag disconnected under certain conditions.

P9. **Ejection**

Definition: The location of each occupant's body as being completely or partially thrown from the vehicle as a result of a crash.

Code: Not ejected
Totally ejected
Partially ejected
Not applicable
Not reported
Unknown

Rationale: Occupant protection systems prevent or mitigate ejections to different extent. Crash injury outcome may depend on information from this element.

P10. **Trapped**

Definition: Persons who are mechanically restrained in the vehicle by damaged vehicle components as a result of a crash, and are freed from the vehicle.

Code: Not trapped
Extricated by mechanical means (Jaws of Life, etc.)
Freed by nonmechanical means
Not reported
Unknown

Rationale: This element would be used to evaluate vehicle integrity and the impact of the need for Jaws of Life or other mechanical means on medical outcome for victims who are entrapped.

Level 3: All Drivers

P11. **Driver License State/Province**

Definition: A code identifying the state or province issuing a driver license to an individual. Includes the states of the United States (including the District of Columbia and outlying areas), Indian Nation, U.S.

Government, Canadian provinces, and Mexican States (including the Distrito Federal), as well as other jurisdictions.

Code: Not Licensed
State code (See Appendix A)
Indian Nation
U.S. Government
Canadian Province
Mexican State
International License (other than Mexico, Canada)
Not reported
Unknown

Rationale: Necessary to evaluate the effectiveness of various licensing laws. This element is also critical in providing linkage between the crash and driver license files at the state level.

P12. **Driver License Number**

Definition: A unique number assigned by the authorizing agent issuing a driver license to the individual.

Code: Alphanumeric identifier assigned by the state, foreign country, U.S. government, Indian Nation, etc.

Rationale: This element is critical in providing linkage between the crash and driver license files at the state level.

P13. **Driver Name**

Definition: The full name of the individual driver.

Code: See Appendix C

Rationale: This data element should be collected to corroborate the driver license number and to facilitate linkage when names are available in the health and insurance files. When possible, obtain this information from the driver license (via a bar code or “smart” license or via on-line linkage if the technology exists at the state level).

P14. **Contributing Circumstances**, **Driver**

Definition: The actions of the driver which may have contributed to the crash.

Code: No Improper driving
Failed to yield right of way
Disregarded traffic signs, signals, road markings
Exceeded authorized speed limit
Driving too fast for conditions

Made an improper turn
Wrong side or wrong way
Followed too closely
Improper action
Failure to keep in proper lane or running off road
Operating vehicle in erratic, reckless, careless, negligent or aggressive manner
Swerving or avoiding due to wind, slippery surface, vehicle, object, nonmotorist in roadway, etc.
Overcorrecting/oversteering
Visibility obstructed
Inattention
Distracted
Fatigued/asleep
Operating defective equipment
Other
Not reported
Unknown

Rationale: Important for evaluating the effect that dangerous driver behavior has on the crash.

P15. **Driver Condition**

Definition: The condition of the driver which may have contributed to the crash.

Code:
Apparently normal
Physical impairment
Emotional (e.g., depressed, angry, disturbed)
Illness
Fell asleep, fainted, fatigued, etc.
Under the influence of medications/drugs/alcohol
Other
Not reported
Unknown

Rationale: Important for evaluating the effect that driver fatigue, medications/alcohol/drugs, or other conditions have on the crash.

P16. **Cited**

Definition: Driver cited for actions which contributed to the crash.

Code:
Yes
No
Pending
Unknown

Rationale: Important for evaluation of enforcement programs.

P17. **Violation Codes**

Definition: All violation codes that apply to indicate the type of violations.

Code: Subfield 1: Violation Code #1
- No violation
- (Violation Code)
- Not reported
- Unknown

Subfield 2: Violation Code #2
- No violation
- (Violation Code)
- Not reported
- Unknown

Subfield 3: Violation Code #3
- No violation
- (Violation Code)
- Not reported
- Unknown

Subfield 4: Violation Code #4
- No violation
- (Violation Code)
- Not reported
- Unknown

Rationale: Important for evaluation of belt use, BAC and other safety laws. Necessary to evaluate enforcement practices and effectiveness of the law. This information is not available from the driver license file.

Level 4: All Drivers and Nonmotorists

P18. **Alcohol/Drug Suspected**

Definition: Investigating police officer's assessment of whether alcohol or drugs were used by the vehicle driver or nonmotorist.

Code: Neither alcohol nor drugs suspected
Yes - alcohol suspected
Yes - drugs suspected
Yes - alcohol and drugs suspected
Not reported
Unknown

Rationale: Alcohol and drug related crashes remain a serious traffic safety problem. Identifying crashes in which alcohol or drugs may have been involved will help evaluate the effectiveness of programs to

decrease the incidence of drunk driving or to identify problem areas. When no BAC or drug test is given, this variable should be based on the investigating officer's judgement.

P19. **Alcohol**

Definition: The percent of Blood Alcohol Content (BAC).

Code: Subfield 1: Test Status
- None given
- Test refused
- Test given, results unknown
- Test given, contaminated sample/unusable
- Unknown

Subfield 2: Type of Test
- Blood
- Breath
- Urine

Subfield 3: Test Result

Rationale: Alcohol remains the most prevalent drug involved in motor vehicle crashes. Capturing BAC whenever a driver or nonmotorist is tested will provide an accurate assessment of the extent of involvement. The type of test used to obtain the BAC also is important information to collect.

P20. **Drugs**

Definition: Indication of the presence of drugs through drug testing.

Code: Subfield 1: Test Status
- Test not given
- Test given, no drugs reported
- Test given, drugs reported
- Test given, contaminated sample/unusable
- Not reported
- Unknown

Subfield 2: Type of Test
- Blood
- Urine
- Serum

Subfield 3: Test Result (Drugs regulated for commercial motor vehicle drivers and others)
- Marijuana
- Cocaine
- Opiates
- Amphetamines
- PCP

Rationale: Drugs other than alcohol are increasingly involved in traffic crashes. Identifying drug related crashes will help develop and evaluate programs directed at reducing their involvement. Whenever evidence of other drug use is available, it should be captured.

Level 5: Nonmotorists

P21. **Nonmotorist Number**

Definition: The unique number assigned to the nonmotorist involved in a crash.

Code: Sequential number uniquely identifying the nonmotorist involved in a crash.

Rationale: Important for management/administration and evaluation. Needed to determined number and type of nonmotorists involved in crash. Needed to track nonmotorist preceding crash action and sustained injury.

P22. **Nonmotorist Type**

Definition: A code indicating the type of nonmotorist involved in a crash. (2.2.41)

Code: Pedestrian (2.2.36)
Pedalcyclist (bicycle, tricycle, unicycle, pedalcar) (2.2.39)
Skater
Other
Not reported
Unknown

Rationale: Used by management/administration to differentiate type of nonmotorist involved in crash and to evaluate extent of nonmotorist involvement in motor-vehicle crashes.

P23. **Nonmotorist Action**

Definition: The actions of the nonmotorist prior to the crash.

Code: Entering or crossing specified location
Improper crossing
Walking, playing, running/jogging
Working
Darting
Is lying and/or illegally in roadway
Failure to yield right of way
Not visible
Bicycle violation
Inattentive (talking, eating, etc.)

Failure to obey traffic signs, signals, or officer
Pushing vehicle
Approaching or leaving vehicle
Playing or working on vehicle
Standing
Other
Not reported
Unknown

Rationale: Needed to develop engineering, educational, and enforcement countermeasures to reduce nonmotorist crashes and to evaluate effect of existing countermeasuresImportant for evaluating the effect that dangerous or risky nonmotorist behavior has on motor vehicle crashes.

P24. **Nonmotorist Condition**

Definition: A code which specifies the condition of the nonmotorist immediately prior to a crash.

Code: Apparently normal
Physical impairment
Emotional (e.g., depression, angry, disturbed)
Illness
Fell asleep, fainted, fatigue, etc.
Under the influence of medications/drugs/alcohol
Other
Not reported
Unknown

Rationale: Information about the condition of the nonmotorist is needed to develop engineering, educational, and enforcement countermeasures to reduce crashes involving nonmotorists. Needed to determine "fault" of crash. Needed to evaluate effect of existing, if any, countermeasures that have been applied.

P25. **Nonmotorist Location Prior to Impact**

Definition: The nonmotorist's location with respect to the roadway prior to impact.

Code: Marked crosswalk at intersection
At intersection but no crosswalk
Nonintersection crosswalk
Driveway access crosswalk
In roadway
Not in roadway
Median (but not on shoulder)
Island

Shoulder
Sidewalk
Within 10 feet of roadway (but not shoulder, median, sidewalk, or island)
Beyond 10 feet of roadway (within trafficway)
Outside trafficway
Shared-use path or trails
Not reported
Unknown

Rationale: Preceding nonmotorist location information used in developing engineering, educational, and enforcement countermeasures for both motorists and nonmotorists to reduce nonmotorist crashes. Needed to determine "fault" of crash. Needed to evaluate effect of existing, if any, countermeasures that have been applied.

P26. **Nonmotorist Safety Equipment**

Definition: The safety equipment(s) used by the nonmotorist.

Code: Subfield 1: Safety Equipment Used by nonmotorist
None used
Helmet used
Protective pads used (elbows, knees, shins, etc.)
Reflective clothing
Lighting
Not applicable
Other
Not reported
Unknown
Subfield 2: Safety Equipment Used by nonmotorist
See Subfield 1

Rationale: Used to evaluate effectiveness of nonmotorist safety equipment. Important to calculate usage statistics for the development and evaluation of effectiveness of educational countermeasures.

P27. **Number of Vehicle Striking Nonmotorist**

Definition: Number assigned to identify the vehicle that struck the nonmotorist in the crash.

Code: Number indicating vehicle that struck the nonmotorist

Rationale: Used for tracking. Important when multiple motor vehicles are involved in crash.

Level 6: All Injured The elements in this section are to be coded only for injured persons.

P28 **Transported to Medical Facility By**

Definition: Type and identity of EMS agency providing transport and medical facility receiving patient

Code: Subfield 1: Source of Transport
- Not transported
- EMS
- Police
- Other
- Not reported
- Unknown

Subfield 2: EMS Response Agency Identifier
- ID for EMS agency that responds

Subfield 3: EMS Response Run Number
- Number of EMS run report

Subfield 4: Medical Facility
- ID number for medical facility receiving patient

Rationale: Important to trace victim from the scene through the health care system. Will facilitate linkage of injured crash victims with Emergency Medical Services data files.

DERIVED DATA ELEMENTS

Derived data elements are not collected at the scene by the police. Instead they are obtained by recoding information contained in existing data elements that have already been collected and computerized. The data element source is listed for each of the derived data elements.

Crash Derived Data Elements

CD1. **Crash Severity**

Definition: The severity of a crash based on the most severe injury to any person involved in the crash.

Source: Derived from **Injury Status (P4)** for each person involved in the crash.

Code: Property-damage-only (none injured)
Nonfatal injury
Fatal injury
Not reported
Unknown

Rationale: Provides for the user a classification of the severity of crash without having to search through the person level records. This simplifies the use of the crash data file for producing reports by crash severity.

CD2. **Number of Vehicles**

Definition: The total number of motor vehicles (e.g., automobiles, single-unit trucks, truck combinations that are in motion or on a roadway) involved in the crash.

Source: Derived by counting the number of vehicles involved in a crash as indicated in **Vehicle Unit Number (V1)**.

Code: Total Number of Vehicles

Rationale: Provides for the user a count of the number of vehicles involved in the crash without having to count the number of vehicle records. This simplifies the use of the crash data file for producing reports in which the number of involved vehicles is needed.

CD3. **Number of Nonmotorists**

Definition: The total number of nonmotorists (pedestrians, pedalcyclists, etc.) involved in a crash.

Source: Derived by counting the number of nonmotorists involved in the crash as indicated in **Nonmotorist Number (P21)**.

Code: Number of Nonmotorists

Rationale: Provides for the user a count of the number of nonmotorists involved in the crash without having to count the number of nonmotorist records. This simplifies the use of the crash data file for producing reports in which the number of nonmotorists is needed or in identifying crashes involving nonmotorists.

CD4. **Total NonFatal Injuries**

Definition: The total number of persons injured in a specific traffic crash.

Source: Derived by counting the number of persons injured in the crash from **Injury Status (P4).**

Code: Total Number of Injured Persons

Rationale: Provides for the user a count of the number of persons injured in the crash without having to search through the person level records. This simplifies the use of the crash data file for producing reports in which the number of injured persons is needed.

CD5. **Total Fatal Injuries**

Definition: The total number of fatalities (motorists and nonmotorists) which resulted from injuries sustained as the result of a specific road vehicle crash. In reporting fatality statistics, a 30-day counting rule is generally used for highway safety statistics. These rules provide that only those deaths which occur within 30 days of a crash will be counted for statistical purposes. (3.1.2)

Source: Derived by counting number of persons fatally injured in the crash from **Injury Status (P4)**.

Code: Total Number of Persons Killed Within 30 Days of Crash.

Rationale: Provides for the user a count of the number of persons fatally injured in the crash without having to search through the person level records. This simplifies the use of the crash data file for producing reports in which the number of fatalities is needed or in identifying crashes involving a fatality.

CD6. **Alcohol/Drug Involvement**

Definition: Investigating police officer's assessment of whether alcohol or drug use was suspected or demonstrated to be present by test for any vehicle driver or nonmotorist in the crash.

Source: Derived from the Driver and Nonoccupant **Alcohol/Drug Suspected (P18), Alcohol (P19), Drugs (P20)**.

Code: Neither alcohol nor other drugs
Yes (alcohol)
Yes (drugs other than alcohol)
Yes (alcohol and drugs)
Not reported
Unknown

Rationale: Provides for the user to easily identify alcohol/drug related crashes without having to search through the person level records. This simplifies the use of the crash data file for producing reports in which the number of alcohol/drug involved crashes is needed or in identifying crashes involving alcohol or drugs.

CD7. **Day of Week**

Definition: The day of the week on which a crash occurred.

Source: Derived from the **Crash Date (C2).**

Code: Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday

Rationale: Crash occurrences are often a function of day of week. This element provides this classification for the user without having to translate the date.

Vehicle Derived Data Elements

VD1. **Vehicle Model Year**

Definition: The year which is assigned to a vehicle by the manufacturer.

Source: Derived from the 10th position of the **Vehicle Identification Number (VL1)** for 1981 to present**.** Prior to 1981, the position for the model year varied by manufacturer. This information also can be obtained separately from the Vehicle Registration File.

Code: Assigned by vehicle manufacturer

Rationale: Important for use in identifying vehicle model year, for evaluation, research and crash comparison purposes.

VD2. **Vehicle Model**

Definition: The manufacture assigned code denoting a family of vehicles (within a make) which has a degree of similarity in construction, such as body, chassis, etc.

Source: Derived usually from positions 4, 5, 6 and 7 of the **Vehicle Identification Number (VL1)** for 1981 to present**.** Prior to 1981, the position for the model varied by manufacturer. This information also can be obtained separately from the Vehicle Registration File.

Code: Assigned by vehicle manufacturer

Rationale: Important for use in identifying vehicle model, for evaluation, research and crash comparison purposes.

VD3. **Vehicle Body Type**

Definition: Code derived from the Vehicle Identification Number to indicate the general configuration or shape or a vehicle distinguished by characteristics such as number of doors, seats, windows, roof line, hard top or convertible.

Source: Derived from the **Vehicle Identification Number (VL1).**

Code: Passenger Vehicles

AM	Ambulance
CB	Cab & Chassis (Luv)
CP	Coupe
CV	Convertible
HB	Hatchback*
HR	Hearse
HT	Hardtop*
LB	Liftback
LM	Limousine
NB	Notchback
PK	Pickup++
PN	Panel++
RD	Roadster
SB	Sport Hatchback
SC	Sport Coupe
SD	Sedan*
SV	Sport Van
SW	Station Wagon
UT	Utility++
WW	Wide Wheel Wagon
2D	Sedan, 2-door
2F	Formal Hardtop 2-door
2H(81-03)	Hatchback, 2-door
2L	Liftback 3-door

2P	Pillard Hardtop 2-door
2T	Hardtop, 2-door
2W	Wagon 2-door
3D	Runabout 3-door
4D	Sedan, 4-door
4H(81-03)	Hatchback, 4-door
4L	Liftback 5-door
4P	Pillard Hardtop 4-door
4T	Hardtop, 4-door
4W	Wagon 4-door
5D	Sedan 5-door

Trucks

AC	Auto Carrier
AR	Armored Truck
BU	Bus
CB	Chassis and cab
CC	Conventional Cab
CG	Cargo Van
CH	Crew Chassis
CL	Club Chassis
CM	Concrete or Transit Mixer
CR	Crane
CS	Super Cab / Chassis Pickup
CU	Custom Pickup
CV	Convertible (Jeep Commando, Suzuki Samurai, Dodge Dakota)
CW	Crew Pickup
CY	Cargo Cutaway
DP	Dump
DS	Tracktor Truck (diesel)
EC	Extended Cargo Van
ES	Extended Sport Van
EV	Ext Van
EW	Extended Window Van
FB	Flat-bed or platform
FC	Forward Control
FT	Fire Truck
GG	Garbage or Refuse
GL	Gliders
GN	Grain
HO	Hopper
IC	Incomplete Chassis
IE	Incomplete Ext Van
LG	Logger
LL	Suburban and Carry All
MH	Motorized Home
MP	Multi-purpose
MV	Maxi Van
MY	Motorized Cutaway

	PC	Club Cab Pickup
	PD	Parcel Delivery
	PK	Pickup
	PM	Pickup with Camper mounted on bed
	PN	Panel
	PS	Super Cab Pickup
	RD	Roadster (Jeep, Jeep Commando)
	SN	Step Van
	SP	Sport Pickup
	ST	Stake or Rack
	SV	Sports Van
	SW	Station Wagon (Jeep Waggonneer, Dodge Sportsman A100, Toyota Landcruiser)
	S1	One Seat
	S2	Two Seat
	TB	Tilt Cab
	TL	Tilt Tandem
	TM	Tandem
	TN	Tank
	TR	Tractor Truck (Gasoline)
	UT	Utility (Blazer, Jimmy, Scout, etc.)
	VC	Van Camper
	VD	Display Van
	VN	Van
	VT	Vanette (including Metro and Handy Van)
	VW	Window Van
	WK	Tow Truck Wrecker
	WW	Wide Wheel Wagon
	XT	Travelall
	YY	Cutaway
	2W	2 Door Wagon
	4W	4 Door Wagon
	8V	8 Passenger Sport Van
Motorcycles		
	AT	All Terrain
	EN	Enduro
	MK	Mini-bike
	MN	Mini Moto Cross
	MP	Moped
	MR	Mini Road/Trail
	MS	Motor Scooter
	MX	Moto Cross
	MY	Mini Cycle
	RC	Racer
	RS	Road/Street
	RT	Road/Trail
	T	Dirt
	TL	Trail/Dirt

TR	Trails
*	Use when more detail is unknown.
++	To code trucks commonly registered as passenger vehicles

Rationale: Important for use in identifying specific type of vehicle involved in a crash for evaluation and comparison purposes.

VD4. **Total Trailers Attached to Truck**

Definition: Total number of trailers attached to a large truck.

Code: Derived by counting the number of trailers attached to a truck as indicated by **Trailer License Plate Number(s) (V6)**.

Rationale: This information is important to evaluate safety issues relative to truck doubles, triples, etc.

LINKED DATA ELEMENTS

Data elements obtained via linkage are not collected at the scene by the police. Instead they are generated when the crash data file is linked to another data file. The linkage source is listed for each of the categories of linked data elements.

Vehicle Linked Data Element

Linked vehicle data elements are obtained by linking the crash and vehicle registration data files using **Vehicle Registration State and year (V2) and Vehicle Plate Number (V3)**.

VL1. **Vehicle Identification Number**

Definition: A unique combination of alphanumeric characters assigned to a specific vehicle and formulated by the manufacturer. When the technology is available, this number also can be obtained by using a bar code reader while the vehicle is at the scene.

Code: A manufacturer assigned number permanently affixed to the vehicle.

Rationale: Important for evaluation of specific vehicle design characteristics and occupant protection systems.

Person Linked Data Elements

Linked person data elements are obtained by linking the crash and injury records (EMS, emergency department, and/or hospital data files) using person identifiers such as **Date of Birth (P1), Sex (P2), Transported to Medical Facility By (P28),** and crash location information including **Crash Date and Time (C2), Crash County (C3), Crash City/Place (C4), Crash Roadway Location (C5), Date and Time Crash Reported to Police Agency (C11), etc.**. They are also obtained by linking the crash and driver registration files using **Driver License Number (P12)**.

Level 3: All Drivers

PL1. **Driver License Class**

Definition: The type of commercial or noncommercial vehicle that a licensed driver has been examined on and approved to operate.

Code:

Class “A” vehicles - any combination of vehicles with a GVWR of 26,001 or more pounds, provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds. (Holds of Class A license may with the appropriate endorsement operate all class B & C vehicles).

Class “B” vehicles - any single vehicle with a GVWR of 26,001 or more pounds, or any such vehicle towing a vehicle not in excess of 10,000 pounds. (Holds of Class B license may with the appropriate endorsement operate all class C vehicles).

Class “C” vehicles - any single vehicle less than 26,001 pounds GVWR, or any such vehicle towing a vehicle not in excess of 10,000 pounds GVWR.

Class “M” vehicles - Motorcycles, Mopeds, Motor-driven cycles.

Never held a license or state can no longer provide this information

Rationale: Used to identify those drivers who were not complying with the limitations of their operators license.

PL2. **Driver License Status, CDL**

Definition: The current status of an individual’s federally-approved commercial driver license (CDL).

Code:

Eligible
Licensed
Not Eligible
Reported Deceased

Rationale: Used to identify those truck and bus drivers--operating vehicles in interstate commerce and vehicles carrying hazardous materials in intrastate commerce--who were not complying with the limitations of their operators license and who were involved in crashes. The commercial drivers license is mandated by federal law. The OMC has jurisdiction over this federal program, and the identification of drivers not having valid CDLs and those having crashes is vital data for the OMC’s drivers license program.

PL3. **Driver License Status, Non-CDL**

Definition: The current status of an individual’s driver license other than a federally approved commercial driver license (CDL).

Code:

Eligible
Licensed
Not Eligible
Reported Deceased

Rationale: Used to identify drivers who were not complying with the limitations of their operators license and who were involved in crashes.

PL4. **Driver License Restrictions**

Definition: Restrictions assigned to a individual's driver license by the license examiner.

Code:
None
Corrective lenses
Mechanical devices (Special brakes, hand controls, or other adaptive devices
Prosthetic aid
Automatic transmission
Outside mirror
Limit to daylight only
Limit to employment
Limited - other
Other
CDL Intrastate only
Vehicles without air-brakes
Except Class A bus
Except Class A and Class B bus
Except tractor-trailer
Farm waiver

Rationale: Used to identify drivers who with limitations on their operators license and who were involved in crashes.

Level 6: All Injured Persons

PL5. **Injury Area**

Definition: The primary or most obvious area of the person's body injured during the crash.

Code: Types of areas are indicated by a matrix or narrative in the EMS records or as an injury or billing code (ICD-9-CM, etc.) in the emergency department, hospital or insurance records. The following list represents the major areas of the body subject to injury.

Head/Brain
Face
Neck
Spine
Back
Chest
Upper extremities

Abdomen
Lower extremities
Injured, area unknown
Not reported
Unknown

Rationale: This type of information will help to distinguish between multiple injured in the same crash.

PL6. **Injury Description**

Definition: Type of injury inflicted to primary **Injury Area (PL5)**.

Code: Visible bleeding
Visible broken bone
Visible burn
Complaint of pain
Apparently unconscious
Other visible or expressed injury
Injury type not otherwise specified and not visible
Not reported
Unknown

Rationale: This type of information will help to distinguish between multiple injured in the same crash.

Roadway Linked Data Elements

Linked roadway data elements are generated by linking the crash to the roadway inventory and hardware data files when these data files exist in the state. The data elements used for linkage include **Crash Roadway Location (C5)** or mile marker, node, etc. depending upon the type of roadway inventory system implemented by the state.

RL1. **Bridge/Structure Identification**

Definition: A unique code assigned to a bridge, underpass, overpass, or tunnel.

Code: Number as described in *Recording and Coding guide for the Structure Inventory and Appraisal of the National's Bridges,* December 1988, Federal Highway Administration, item 8. HPMS/90, item 77.

Rationale: Identifying the bridge can link to the specific geometric data describing the bridge for problem identification analysis. Important for determining the relationship between structure characteristics and crashes.

RL2. **Horizontal Alignment**

Definition: The change in horizontal direction of a roadway, determined at the point of curvature (pc) and expressed in terms of direction, degree of curve and length.

Code:
Subfield 1: Direction
Right
Left
Subfield 2: Curve
Radius
Subfield 3: Length
Subfield 4: Blank
Subfield 5: Unit of Measure

Rationale: Curve data is used in searching for and diagnosing high crash locations. Important for determining relationship between horizontal alignment related crashes to guide future highway design, speed limits, and driver skill training (e.g. motorcycle curve entering speed).

RL3. **Grade**

Definition: The inclination of a roadway, expressed in the rate of rise or fall in feet/meters per 100 feet/meters of horizontal distance. (2.5.14)

Code:
Subfield 1: Direction of slope
Up or down
Subfield 2: Percent of slope
Nearest percent of slope

Rationale: Grade is used in diagnosing possible causes and countermeasures for a high crash site.

RL4. **Part of National Highway System**

Definition: Designation as part of the national highway system.

Code:
Yes
No
Not reported
Unknown

Rationale: Important to monitor highway safety on national highway system.

RL5. **Functional Classification of Highway**

Definition: The character of service or function of streets or highways. The classification of rural and urban is determined by state and local

officials in cooperation with each other and approved by the Federal Highway Administration, U.S. Department of Transportation.

Code: Rural (2.5.2)
- Principal arterial-interstate (2.5.3, 2.5.4)
- Principal arterial-other (2.5.5, 2.5.6)
- Minor arterial
- Major Collector
- Minor Collector
- Local

Urban (2.5.1)
- Principal arterial-interstate
- Principal arterial-other freeway or expressway
- Principal arterial-other
- Minor arterial
- Collector
- Local

Unknown

Rationale: Important for comparing crash rates/safety experience of highways of similar design characteristics so as to identify those highways or highway sections that have abnormal rates/experience for future improvements as well as generalized study of the highways in a region or state. Knowledge of the land use is needed in analyzing crashes as part of a network analysis.

RL6. **Lanes**

Definition: Total number of lanes in the trafficway, regardless of function or direction of travel, at the particular cross section of the roadway where the crash occurred.

Code: Total number of lanes in the trafficway

Rationale: Used in studying broad categories as well as identifying the environment of a particular crash.

RL7. **Annual Average Daily Traffic**

Definition: The average number of vehicles passing a point on a trafficway in a day, for all days of the year, during a specified calendar year.

Code: Subfield 1:
- Calendar year

Subfield 2:
- Vehicles per day (AADT)

Rationale: Important to normalize crash data to account for the exposure.

RL8. **Trafficway Description**

Definition: A code indicating whether or not a trafficway is divided and whether it serves one-way or two-way traffic. (A divided trafficway is one on which roadways for travel in opposite directions are physically separated by more than an easily traversable centerline.) (2.2.1)

Code:
Two-way, not divided
Two-way, divided, unprotected median
Two-way, divided, positive median barrier
One-way, not divided
Not reported
Unknown

Rationale: Used in classifying crashes as well as identifying the environment of a particular crash. Note that data must be in a road inventory file or collected by the reporting officer. It is not readily derived from the other road data such as classification or route. Important to guide future trafficway design and traffic control.

RL9. **Shoulder/Lane Width**

Definition: Width of lane or shoulder where crash occurred.

Code:
Subfield 1: Location
    Lane
    Shoulder
Subfield 2: Width Measured in Feet
    Number of Feet

Rationale: Important to monitor the association of shoulder/lane width and the frequency of crashes.

RL10. **Median**

Definition: A median is an area of a trafficway between parallel roads separating travel in opposite directions.

Code:
Less than four feet
Four feet or greater
Not reported
Unknown

Rationale: Important to monitor the unmet need for medians to protect motorists from oncoming traffic.

RL11. **Access Control**

Definition: The degree that access to abutting land, light, air, or view in connection with a highway is fully or partially controlled by public authority.

Code: Full Access Control
Partial access Control
No Access Control

Rationale: Access control is highly correlated with crash rates. Road inventory files or police reported data on access control is used in identifying high hazard locations. Important to guide future highway design and traffic control.

RL12. **RR Crossing ID**

Definition: A unique number assigned to a railroad crossing by a state highway agency in cooperation with the American Association of Railroads for identification purposes. (US DOT/AAR number)

Code: State specific number assigned by a state in cooperation with the American Association of Railroads.

Rationale: The data is used in high crash locations as well as high risk corridors. Important for determining the need for additional controls and evaluating the efficacy of various types of controls.

RL13. **Roadway Lighting**

Definition: The type of roadway illumination at a point on the roadway.

Code: No lighting
Spot illumination
Continuous lighting

Rationale: Lighting is recognized as having a benefit to safe highway operations. The presence of lighting is an important element in analysis of a spot location, a section of highway, or a network analysis. Important for determining the affects of highway illumination on nighttime crashes to guide future installations.

RL14. **Pavement Markings, Longitudinal**

Definition: The longitudinal markings (paint, plastic, or other) used on the roadway surface to guide or control the path followed by drivers.

Code: Subfield 1: Function and Color
Centerline, skip-dash, yellow
Centerline, solid, yellow
Centerline, solid double, yellow
No passing barrier, right or left, yellow

Lane line, skip-dash, white
Lane line, solid, white
Edge line, left, yellow
Edge line, right, white
Left turn lane lines, combination of solid and skip-dash, yellow
Turn arrow symbols, right, through, left, or combination of two
Not reported
Unknown

Subfield 2: Material

Paint
Thermoplastic
Raised markers
Permanent inlay
Tape
Other
Not reported
Unknown

Rationale: Knowledge of the existence of pavement markings is necessary to the analysis of crash data. Important for determining the affects of various types of longitudinal markings on various types of crashes to guide future applications.

RL15. **Bikeway**

Definition: Any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. (2.2.43)

Code:
No Bikeway
Bicycle Route (signed)
Bicycle Lane (striped) - right only (2.2.45)
Bicycle Lane (striped) - both sides (2.2.45)
Bicycle Lane (striped) - left only (2.2.45)
Separate Bicycle Path/Trail (2.2.44)
Not reported
Unknown

Rationale: Needed to determine usage of bicycle facilities. Needed to determine location of bicycle crashes in relation to bicycle facility. Information is used to design facilities to more safely accommodate both bicycles and motor vehicles. Important for ascertaining the relative safety performance of various types/classes of bike paths to guide future design/operation decisions.

RL16. **Delineator Presence**

Definition: The presence or absence of a series of reflecting devices mounted at regular intervals along the side of the road to indicate the alignment of the roadway.

Code:
None
Delineators, right
Delineators, left
Delineators, both sides
Not reported
Unknown

Rationale: Important for determining the effectiveness of delineation on night time and run-off-the-road crashes and guide future installations.

Glossary

Access Control	The condition where the right of owners or occupants of abutting land or other persons to access, light, air, or view in connection with a highway is fully or partially controlled by public authority.
Adaptive Equipment	Adaptive equipment is equipment, other than that supplied by the original equipment manufacturer, which accommodates the vehicle functions to the capabilities of a person with disabilities. This may be for either a driver or passenger. Examples include: steering control device mounted on the steering wheel, hand controls, wheelchair lift or ramp, wheelchair tie down, additional or relocated switches for secondary controls (lights, wipers, etc).
Air Bag Deployed	Air bag is out of its cover and protruding into occupant compartment. Bag is fully or partially deflated or inflated.
Alcohol/Drug Suspected	Officer suspects drug or alcohol use by person.
Alcohol/Drug Involvement	Investigating police officer's assessment of whether alcohol or drug use was suspected or demonstrated to be present by test for any vehicle driver or non-motorist in the crash. Derived from the Driver and Non-occupant Alcohol/Drug Suspected (P18), Alcohol (P19), Drugs (P20).
Alcohol	The percent of Blood Alcohol Content (BAC).
Alignment	The geometric characteristics or layout of a roadway. Alignment is usually subdivided into horizontal and vertical alignment.
Alphanumeric Identifier	Consisting of alphabetic and numerical symbols.
Ambient Light	The type of light that exists at the time of a motor vehicle crash.
Angle - Force of Collision	The angle of the direction of the force in which two or more vehicles initially came together.
Angle - Manner of Impact	A crash where two vehicle impact at an angle. For example, the front of one vehicle impacts the side of another vehicle.

Animal in Roadway	Living beings which have the capacity for movement and motor response to stimulation but are not a human beings.
Apparently Normal	Driver does not appear to be in an abnormal state.
Approaching or Leaving Vehicle	Physical movement in the direction of or in the direction away from the vehicle.
At Intersection but No Crosswalk	At an area which contains a crossing or connection of two or more roadways not classified as a driveway access but without the street crossing distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway.
Auto Transporter	A single-unit truck, truck/trailer, or tractor/semi-trailer having a cargo body specifically designed to transport other motor vehicles. This includes flatbed and standard body tow trucks.
Auxiliary Lane	The portion of the roadway adjoining the through traveled way for parking, speed change, turning, storage for turning, weaving, truck climbing, or for other purposes supplementary to through traffic movement.
Backing	A start from a parked or stopped position in the direction of the rear of the vehicle.
Barrier	A device which provides a physical limitation through which a vehicle would not normally pass and is designed to contain or redirect an errant vehicle.
Bicycle Violation	The disregard intentionally or unintentionally of the rules or laws governing the operation of a pedalcycle as a transport device in the location where the violation occurred.
Blowing Sand, Soil, Dirt, Snow	Sand, soil , dirt, or snow moved or carried by wind. See definition of sand, dirt, and snow elsewhere.
Bridge - Parapet End	A low wall built along the edge of a bridge deck.
Bridge - Pier or Abutment	A bridge pier is a support for a bridge structure other than at the ends. A bridge abutment is the end support for a bridge.

Bridge - Overhead Structure	Any part of a bridge that is over the reference or subject roadway. In crash reporting, this typically refers to the beams or other structural elements supporting a bridge deck.
Bridge	A structure, including supports, carrying a roadway, railroad etc. over an obstruction such as water, a railway, or another roadway, having an opening of 20 feet (6 m) or more measured along the center of the structure.
Bridge - Rail	A barrier attached to a bridge deck or a bridge parapet to restrain vehicles, pedestrians or other users.
Bump	A relative abrupt protrusion in the road.
Canadian Province	A territory governed as a political unit of Canada.
Cargo Body Type	Coded for buses and trucks over 10,000 pounds GVWR.
Cargo Tank	A single-unit truck, truck/trailer, or tractor/semi-trailer having a cargo body designed to transport either dry bulk (fly ash, etc.), liquid bulk (gasoline, milk, etc.), or gas bulk (propane, etc.).
Cargo/Loss or Shift	The release of the goods being transported from the cargo compartment of the truck, or the change in the position of the goods within the cargo compartment.
Cargo Released	The goods being transported by truck spill out of the vehicle cargo compartment.
Carrier Identification Number	A unique number assigned by the U.S. Department of Transportation, Interstate Commerce Commission, or by the state to a motor carrier.
Carrier Name Source	Where the name of the motor carrier was noted, be it the power unit of the truck, the trailer, the shipping papers, or other documents.
Carrier Name	The name of an individual, partnership or corporation responsible for the transportation of persons or property.
Carrier Street Address	The street address of the carrier.

Center Line	A yellow pavement marking used to separate traffic traveling in opposite directions. A center line need not be at the geometrical center of the pavement.
Center Line, Double	A double yellow solid line is used where passing is prohibited.
Center Line, Broken	A single yellow broken line is used where passing is permitted.
Center Line, Solid and Broken Line	A broken yellow line and a solid yellow line are used where passing in permitted in one direction.
Changing Lanes	A vehicle shift from one traffic lane to another traffic lane moving in the same direction.
Child Safety Seat Used	Child passenger was seated in a child safety seat. This does not imply correct use or placement of the child safety seat.
Cited	Driver or non-occupant issued a citation for actions which contributed to the crash.
Clear	Free from pollution or cloudiness.
Cloudy	Overcast with clouds. (Cloud - a visible mass of particles of water or ice in the form of fog, mist, or haze suspended usually at a considerable height in the air.)
Collision	A road vehicle crash other than an overturning crash in which the first harmful event is a collision of a road vehicle in transport with another road vehicle, other property, animal or pedestrian.
Collision With Object Not Fixed	A collision crash in which the first harmful event is the striking by a road vehicle in transport of an object that is not fixed.
Collision With Fixed Object	A collision crash in which the first harmful event is the striking of a fixed object by a road vehicle in transport**.**
Compartment Intrusion	Amount of vehicle which intrudes into the occupant compartment as the result of a crash.
Concrete Mixer	A single-unit truck with a body specifically designed to mix or agitate concrete.
Construction Zone	See Work Zone.

Contributing Circumstances, Driver	The actions of the driver which contributed to the crash.
Contributing Circumstances, Environment	Apparent environmental conditions which contributed to the crash.
Contributing Circumstances, Road	Apparent condition of the road which contributed to the crash.
Contributing Circumstances, Non-motorist	The actions of person other than the driver that contributed to the crash.
Crash County	The county in which the crash occurred.
Crash Date and Time	The date (year, month, and day) and time (hour and minute) at which the crash occurred.
Crash City/Place	The city/place in which the crash occurred.
Crash Severity	The severity of a crash based on the most severe injury to any person or, if none injured, so designating. Derived from **Injury Status (P4)** for each person involved in the crash.
Crash Case Number	Unique identifier within a given year that identifies a given crash.
Crash Roadway Location	Exact location on the roadway indicating where the crash occurred.
Crossover	Area in the median of a divided roadway where vehicles are permitted to travel cross the opposing lanes of traffic or do a U-turn.
Culvert	An enclosed structure providing free passage of water under a roadway with a clear opening of twenty feet (6 m) or less measured along the center of the roadway.
Curb	A raised edge or border to a roadway. Curbs may be constructed of concrete, asphalt, or wood and typically have a face height of less than 9 inches (225 mm).
Dark - Roadway Not Lighted	It is dark and the roadway is not lighted by lights designed and installed to illuminate the roadway.
Dark - Unknown Roadway Lighting	It is dark and it is unknown if the roadway was lighted by lights designed and installed to illuminate the roadway.

Dark - Lighted Roadway	It is dark but the roadway is lighted by lights designed and installed to illuminate the roadway. This is not lighting from store front, house lamps, etc.
Dart Out	Pedestrian enters street mid-block and is struck by or walks or runs into a moving vehicle.
Date of Birth	Year, month, and day of birth of person involved in crash.
Date and Time Crash Reported to Police Agency	The date and time at which the call was placed notifying the police agency about the crash.
Dawn	The first appearance of light in the morning.
Day of Week	The day of the week on which a crash occurred.
Daylight	The light of day.
Debris	The remains of something broken or destroyed.
Deployed Air Bag-Driver	Driver air bag out of its cover and protruding into driver compartment. Bag is fully or partially deflated or inflated.
Deployed Side Air Bag	Air bag on side of vehicle is out of its cover and protruding into occupant compartment. Bag is fully or partially deflated or inflated.
Deployed Air Bag-Front Seat Passenger	Front seat passenger air bag out of its cover and protruding into front seat passenger compartment. Bag is fully or partially deflated or inflated.
Deployment of Air Bag unknown	Not known if air bag is out of its cover and protruding into occupant compartment.
Deployment of Air Bag	Air bag out of its cover and protruding into occupant compartment. Bag is fully or partially deflated or inflated.
Derived Data Elements	Derived data elements are not collected at the scene by the police. Instead they are obtained by counting or recoding information contained in existing data elements that have already been collected and computerized.
Direction of Travel Before Crash	The direction of a vehicle's normal, general travel on the roadway before the crash. Notice that this is not a compass direction but a direction consistent with the overall direction of the road.

Disabling Damage	Damage which precludes departure of the vehicle from the scene of the crash in its usual daylight operating manner after simple repairs.
Disregarded Traffic Signs, Signals, Road Markings	Driver failed to comply with the instructions directed by traffic signs, signals, or road markings.
Ditch	Channel dug into the ground.
Downhill Runaway	A motor vehicle that is moving down a hill without the ability to stop.
Driver Condition	State of being or health or physical fitness of the occupant who is in actual physical control of a transport vehicle at the time of the crash of the vehicle.
Driver License Number	A unique number assigned by the authorizing agent issuing a driver license to the individual.
Driver License State/Province	The geographic or political entity issuing a driver license. Includes states of the United States, including D.C., Indian Nations, U.S. Government, Canadian provinces, and Mexican states.
Driver Name	The full name of the operator of the vehicle in transport.
Driver	An occupant who is in actual physical control of a transport vehicle or, for an out-of-control vehicle, an occupant who was in control until control was lost.
Driver Distracted	Determination that occupant who is in actual physical control of a transport vehicle had his/her attention diverted from driving.
Driveway	A roadway providing access to property adjacent to a trafficway.
Driveway access crosswalk	Crosswalk on roadway providing access to property adjacent to a trafficway.
Driving Too Fast for Conditions	Traveling at a speed that was unsafe for the road, weather, traffic or other environmental conditions at the time.
Drugs	Indication of the presence of drugs through drug testing.

Dry	Free from water or liquid.
Dump Truck	A truck which can be tilted or otherwise manipulated to discharge its load by gravity.
Dusk	The darker part of twilight especially at night.
Edge Line	A pavement marking used to mark the edge of pavement for driver guidance.
Ejection	An occupant's body completely or partially thrown from the vehicle as a result of a crash.
Embankment	A structure of soil or rock above the original ground upon which a pavement structure is constructed.
Emergency Use	Indicates vehicles, such as military, police, ambulance, fire, etc., which are on an emergency response. Emergency refers to a vehicle that is traveling with physical emergency signals in use; typically red light blinking, siren sounding, etc. Code yes only if the vehicle was on an emergency response.
Emotional Illness	Behavior which indicates depression, anger, emotional disturbance, etc.
EMS Response Run Number	Number of EMS run report.
EMS Response Agency Identifier	ID for EMS Agency that responds.
Entering Traffic Lane	Physical presence in trafficway.
Entering or Crossing Specified Location	Non-occupant went into or crossed over a specific identified area that was either was or was not part of the trafficway or roadway.
Exceeded Authorized Speed Limit	Driver was operating vehicle faster than posted speed limit at time of crash.
Extricated by Mechanical Means	Person was removed from vehicle by mechanical means (i.e., "jaws-of-life", etc.)
Failed to Yield Right of Way	Driver did not give way to another vehicle or non-occupant as required.

Failure to Keep In Proper Lane or Running Off Road	Driver did not maintain position in appropriate travel lane or moved off of that part of a trafficway which includes both the roadway and any shoulder alongside the roadway.
Failure to Obey Traffic Signs, Signals, or Officer	Non-motorist did not comply with the instructions directed by traffic signs, signals, or a police officer at the scene.
Farm Waiver	
Fatal Injury	Any injury that results in death within a 30 day period after the crash occurred.
Fell Asleep, Fainted, Fatigue, Etc.	Driver experienced a temporary loss of consciousness or was operating in a reduced physical and mental capacity due to weariness, medication, or other drugs.
FIPS Code	Federal Information Processing Standards for coding states, counties, and cities.
Fire/Explosion	Fire/explosion which was the cause or product of the crash.
First Event	Occurrence which was the first thing that happened to the vehicle, relevant to the crash.
First Harmful Event	The injury or damage producing event which characterizes the crash type and identifies the nature of the first harmful event, such as an explosion in the vehicle.
Five-Point, or More-Intersection	An intersection where more than two roadways cross or connect.
Flashing Traffic Control Signal	Traffic control signal that is flashing or a single light flashing red or yellow.
Flatbed	A single-unit truck, truck/trailer, or tractor/semi-trailer whose body is without sides or roof, with or without readily removable stakes which may be tied together with chains, slats, or panels. This includes trucks transporting containerized loads.

Fog, Smog, Smoke	Fog - a vapor condensed to fine particles of water suspended in the lower atmosphere that differs from cloud only in being near the ground. Smog - a fog made heavier and darker by smoke and chemical fumes. Smoke - the suspension of solid particles in the atmosphere.
Followed Too Closely	Driver was positioned too near another vehicle or non-occupant to permit safe response to any change in movement or behavior of the other vehicle or non-occupant.
Force of Collision	The direction of the force in which vehicles initially came together.
Four-Way Intersection	An intersection where two roadways cross or connect.
Fourth Event	Occurrence which was the fourth thing that happened to the vehicle in question that was relevant to the crash.
Freed by Non-Mechanical Means	Person was removed from trapped condition in vehicle by means other than “jaws-of-life.”
Freezing Rain or Drizzle	Water which is freezing once it hits the ground.
Front Seat - Right Side	Passenger seat to right of driver and next to the door.
Front Seat - Middle	Passenger seat between driver and right seat passenger.
Front Seat - Left Side	Driver seat for motor vehicle or motorcycle.
Full Access Control	Authority to control access is exercised to give preference to through traffic by providing access connections with selected public roads only, by prohibiting crossings at grade or direct private driveway connections.
Functional Classification	A classification system in which highways and streets are grouped into classes, or systems, according to the character of the service the are intended to provide.
Functional Damage	Damagewhich is not disabling, but affects operation of the road vehicle or its parts.

Garbage/Refuse	A single-unit truck having a body specifically designed to collect and transport garbage or refuse.
Glare	A harsh uncomfortably bright light.
Global Positioning System (GPS)	Exact geographic location indicated in terms of latitude and longitude.
Geographic Information System (GIS)	System which associates information with specific geographic locations, for example roadway characteristics by latitude/longitude.
Grade	The rate of ascent or descent of a roadway, expressed as a percent; the change in roadway elevation per unit of horizontal length.
Grain/Chips/Gravel Truck	Truck with closed sides and bottom to carry grain, chips, gravel, etc.
Guardrail Face	The side of the primary longitudinal element of a guardrail nearest traffic.
Guardrail End	The first or last 25 feet (7.6 m) of a guardrail measured from the end post.
Guardrail (Guiderail)	A longitudinal barrier consisting of posts and rails or cables.
Hail	Precipitation in the form of small balls or lumps usually consisting of concentric layers of clear ice and compact snow.
Hazardous Materials Placard	A diamond shaped sign that must be affixed to any motor vehicle that carries hazardous materials usually contains a four digit number in the middle of the placard and a one digit number at the bottom that indicate the hazard class and specific material being carried.
Hazardous Materials	Any substance or material which has been determined by the U.S. Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designed under regulations of the US DOT.

Hazardous Materials Involvement (Cargo Only)	Indication that a motor vehicle had a hazardous materials placard as required by federal regulations.
Head-on - Manner of Impact	A crash where the front end of two vehicles impact.
Head-on - Force of Collision	A crash in which the direction of force causes the vehicle to move forward head first.
Helmet used	Safety helmet was worn by non-motorist or driver.
Highway Traffic Sign Post	A pole, post, or structure constructed to support a highway sign intended to guide, regulate, or inform highway users.
Highway, Street or Road	A general term denoting a public way for purpose of vehicular travel, including the entire area within the right-of-way. (Recommended usage: in urban areas - highway or street, in rural areas - highway or road).
Holes	An opening in the road.
Horizontal Alignment	The plan view of a roadway. Horizontal alignment is described in terms of lengths of tangents and degree of curves.
ICC	Interstate Commerce Commission (defunct since 1996).
Ice	Frozen water.
Identification Number	Unique number that identifies a person, crash, or vehicle.
Immersion	Object or person buried completely by liquid.
Impact Attentuator/Crash Cushion	A barrier at a spot location, less than 25 feet (7.6 m), designed to prevent an errant vehicle from impacting a fixed object hazard by gradually decelerating the vehicle to a safe stop or by redirecting the vehicle away from the hazard.
Improper Action	Action contrary to motor vehicle rules.
Improper Crossing	Crossing a trafficway against the rules.
In Roadway	Physically located in that part of trafficway designed, improved, and ordinarily used for motor vehicle travel.

Inattention	Lack of concentration or observation.
Indian Tribe	Designation as member of federally recognized Indian Tribe.
Injury Status	Injury condition.
International License (other than Mexico, Canada)	Driver license issued by country other than Canada, Mexico or U.S.
Island	Cement or grassy area in the middle of a trafficway.
Issuing Authority	Organizational entity with the power to license.
Jackknife	An event involving a truck pulling a semi-trailer or semi-trailers and trailers where the trailing unit(s) and the pulling vehicle rotate with respect to each other.
Lane/Traffic Lane	A strip of roadway used for a single line of vehicles.
Lane Line, Broken White	A lane line which permits lane changing with care.
Lane Line	A white pavement marking used to separate traffic traveling in the same direction. Lane lines are normally 4 to 6 inches (100 to 150 mm) wide.
Lane Line, Double White	A double lane line is used to prohibit lane changing.
Lane Line, Solid White	A solid lane line is used to discourage lane changing.
Lap Belt Only Used	Use of or presence of only a lap safety belt either because vehicle is equipped only with lap belt or because shoulder belt is not in use.
Leaving Traffic Lane	Vehicle or person moving outside traffic lane.
Light Truck with only four tires	Trucks (van, mini-van, panel, pickup, sport utility) of 10,000 pounds gross vehicle weight rating or less.
Lighting	Non-motorist use of lights on his/her person or on a vehicle not in transport or transport vehicles other than motor vehicle as safety equipment.

Logbook	A document carried in the truck cab or bus in which commercial motor vehicle drivers must enter their record of duty status for each 24 hour period using methods proscribed by the US DOT.
Longitudinal Barrier	A barrier designed to shield errant vehicles from hazardous areas that extend more than 25 feet (7.6 m) along a roadway.
Luminaire	A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.
Luminarie/Light Support	A pole or post constructed to support a luminaire for lighting a highway.
Lying/Illegally in Roadway	Person physically located in that part of trafficway designed, improved, and ordinarily used for motor vehicle travel.
Made An Improper Turn	Driver turned vehicle incorrectly or not suitably to the circumstances.
Manner of Impact	The identification in a crash of the manner in which two or more vehicles initially came together.
Marked Crosswalk at Intersection	That portion of the roadway at the intersection that is distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway.
Median	The portion of a divided highway separating the traveled way for traffic in opposing directions.
Medical Facility	ID Number for Medical Facility Receiving Patient.
Most Harmful Event for This Vehicle	The most harmful event in terms of property damage and injury caused by this vehicle.
Most Damaged Area/Extent of Deformity	The location and severity of most damage on vehicle from crash.

Motor Vehicle In Transport	Motor vehicle - any motorized (mechanically or electrically powered) road vehicle not operated on rails. In Transport - means in motion or on a roadway. Inclusions: motor vehicle in traffic on a highway, driverless motor vehicle in motion, motionless motor vehicle abandoned on a roadway, disable motor vehicle on a roadway, etc.
Motor Vehicle Collision	An crash in which the first harmful event is the collision of two or more motor.
Motor Home	A van where a frame-mounted recreational unit is added behind the driver or cab area or mounted on a bus/truck chassis.
Motorcycle	A two- or three-wheeled motor vehicle designed to transport one or two people. Included are motorscooters, minibikes, and mopeds.
Motorist	Any occupant of a motor vehicle in transport who provided information on the crash report.
No Improper Driving	Driver operated vehicle in an apparently correct manner.
No Access Control	Each abutting property is permitted access to the street or highway; however, the location, number and geometry of the access points may be regulated.
Non Collision	Any road vehicle crash other that involving a collision crash.
Non-Fatal Injury	Bodily harm to a person.
Non-Highway Work	Work on the roadside but not related to the roadway. For example, workers mowing the roadside, utility workers working on utility poles adjacent to roadway.
Non-Intersection Crosswalk	A portion of the roadway, not at an intersection, that is distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway.
Non-Motorist Condition	State of being or health or physical fitness of any person other than the motorist.
Non-Motorist Number	The unique number assigned to the non-motorist involved in a crash.

Non-Motorist Safety Equipment	The safety equipment(s) used by the non-motorist, such as bicycle or motorcycle helmet.
Non-Motorist Location Prior to Impact	The non-motorist's location with respect to the roadway prior to impact.
Non-Motorist Type	A code indicating the type of non-motorist involved in a crash (pedestrian, pedalcyclist, skater, etc.)
Non-Motorist	Any person other than an occupant of a motor vehicle in transport. This includes pedestrians, occupants of other motor vehicles not in transport and occupants of transport vehicles other than motor vehicles.
Number of Vehicle Striking Non-Motorist	The number assigned to identify the vehicle that struck the non-motorist in the crash.
Number of Vehicles	The total number of motor vehicles involved in the crash.
Number of Non-Motorists	The total number of non-motorists (pedestrians, pedalcyclists, etc.) involved in a crash. Derived by counting the number of non-motorists involved in the crash as indicated in **Non-Motorist Number (P21)**.
Obstruction in Roadway	A blockage in roadway.
Occupant Protection System Use	The restraint equipment in use by occupant at the time of the crash, or the helmet use by a motorcyclist.
Off Ramp	An auxiliary roadway used for leaving through-traffic lanes.
On Ramp	An auxiliary roadway used for entering through-traffic lanes.
ON-OFF Switch (Air Bag Deployed)	aA switch that activates-deactivates the front seat passenger or driver air bag.
Operating Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	Operating the vehicle without regard to the safety of occupants, non-occupants or property.
Operating Defective Equipment (Driver)	Vehicle in transport or any part or component of vehicle in transport is deficient, faulty, incomplete or incapacitated.

Other Non-Fixed Object - Collision With	A collision with an object other than a motor vehicle in transit, a pedestrian, an other road vehicle in transit, a parked motor vehicle, a railway vehicle, a pedalcycle, an animal, or a fixed object.
Outside Trafficway	Not physically located on any land way open to the public as a matter of right or custom for moving persons or property from one place to another.
Overcorrecting/ Oversteering	Wide swing of vehicle to right or left because of sliding, etc. or to compensate for obstacle in roadway.
Overhead Sign Support	A pole, post, or structure constructed to support a sign which is over a roadway.
Overturn/Rollover	A vehicle that has overturned at least 90 degrees to its side.
Overtaking/Passing	A vehicle that moves from behind a vehicle to in front of the same vehicle.
Parked Motor Vehicle	A motor vehicle not in transport.
Parking Lane	An auxiliary lane primarily for the parking of vehicles.
Partial Access Control	Authority to control access is exercised to give preference to through traffic to a degree that, in addition to access connections with selected public roads, there may be some crossings at grade and some private driveway connections. However, these direct private driveway connections have been minimized through the use of frontage roads or other local access restrictions.
Partially Ejected	The location of an occupant's body not completely thrown from the vehicle as a result of a crash.
Passenger Car	Motor vehicles used primarily for carrying passengers.
Pavement Markings	Markings set into the surface of, applied upon, or attached to the pavement for the purpose of regulating, warning, or guiding traffic. Markings are typically paint, or plastic but may be devices of various materials.

Passenger	Occupant of vehicle other than the driver of the vehicle.
Pedalcyclist	Any occupant of a pedalcycle (bicycle, tricycle, unicycle, pedalcar).
Pedestrian	Any person on foot on a roadway.
Person Type	Type of person involved in a crash in relationship to the crash, e.g., driver, passenger, etc.
Physical Obstruction - Contributing Circumstances	An object which blocked sight and contributed to the crash.
Physical Impairment	A condition that results in some decrease in a physical ability.
Placard Number	A number included on the hazardous material placard displayed on trucks that are carrying hazardous materials. Many placards have two numbers, a four digit number in the middle, and a one digit number at the bottom.
Playing or Working on Vehicle	Non-motorist, such as a child or mechanic, touching vehicle.
Point of Impact	The portion of the vehicle that impacted first in a crash.
Pole Trailer	A trailer designed to be attached to the towing vehicle by means of a reach or pole, or by being boomed or otherwise secured to the towing road vehicle, and ordinarily used for carrying property of a long or irregular shape.
Police Reporting Agency Identifier	A unique identifier for the police agency who provided information on the crash report.
Police Agency - Source of Information	Police officer provided the information on the crash report.
Property Damage Only	Crash in which at least one vehicle is damaged but no occupants or non-motorists are injured.
Protective Pads Used	Padded, shaped attachments to protect specific areas of the body (elbows, knees, shins, etc.) from injury, usually when skating.

Railway Vehicle - Collision With	A collision crash in which the first harmful event is the collision of a road vehicle in transport and railway vehicle (e.g., train, engine).
Railway Crossing Device	Any sign, signal, or gate which warns of on-coming trains or train tracks crossing the roadway.
Railway Vehicle	Any land vehicle (e.g., train, engine) that is (1) designed primarily for , or in use for, moving persons or property from one place to another on rails and (2) not in use on a land way other than a railway.
Railway Grade Crossing	A intersection between a roadway and train tracks which cross each other at the same level (Grade).
Rain	Water falling in drops condensed from vapor in the atmosphere.
Raised Pavement Marker	An individual unit marker, reflectorized or non-reflectorized, generally less than one-inch (25 mm) in height, attached to and extending above the normal pavement surface for the purpose of regulating, warning, or guiding traffic.
Ran Off Road	Failure of the driver to keep the vehicle within the roadway traffic lanes.
Rear-End - Manner of Impact	A crash where the front of one vehicle impacts the back of another vehicle.
Rear-to-rear - Manner of Impact	A crash where the backs of two vehicles impact.
Relation to Roadway	The location of the first harmful event as it relates to its position within or outside the trafficway.
Retro-Reflective Clothing	Clothing which reflects light and also returns most of that reflection back along the path of the incoming light.
Riding on Vehicle Exterior	Person outside of vehicle (on hood, running board, trunk, non-trailing unit, etc.) while riding.
Road Surface Condition - Contributing Circumstances	The roadway surface condition at the time and place of a crash which contributed to the crash.

Road Under Construction/ Maintenance	Roadway being constructed or resurfaced.
Roadside	The outermost part of the trafficway from the property line to other boundary in to the edge of the first road.
Roadway Surface Condition	The roadway surface conditions at the time and place of a crash.
Roadway	That part of a trafficway designed, improved, and ordinary used for motor vehicle travel or, where various classes of motor vehicle are segregated, that part of a trafficway used by a particular class. Separate roadways may be provided for northbound and southbound traffic or for trucks and automobiles. Bridle paths and bicycle paths are not included in this definition.
Roadway - Crash on	(1) a collision crash in which the initial point of contact between colliding units in the first harmful event is within a roadway or (2) a non-collision crash in which the road vehicle involved was partly or entirely on the roadway at the time of the first harmful event.
Rut	Track worn by wheel or by habitual passage in the road.
Safety Equipment Used by Non-Motorist	Includes retro-reflective clothing, lighting, protective pads, helmet.
Sand, Mud, Dirt, Oil, Gravel	Sand - loose granular material resulting from the disintegration of rock on the road. Mud - slimy sticky mixture of soil and water on the road. Dirt - loosed or packed soil on the road. Oil - substance that is liquid and soluble in ether but not in water. Gravel - loose rounded fragments of rock on the road.
School Bus	A motor vehicle used for the transportation of any school pupil at or below the 12th-grade level to or from a public or private school or school-related activity, if it is externally identifiable by the color yellow, the words “school bus” , flashing red lights are located on the front and rear, and identifying lettering on both sides indicating the school or school district served, or the company operating the bus.

School Bus Related Crash	A motor vehicle crash in which a school bus, with or without a pupil on board, is involved directly as a contact vehicle or indirectly as a noncontact vehicle.
School Zone Signs	Signs which change the speed limit on road adjacent to schools on school days, signs which give advance warning of school and signs which warn of children crossing the road.
Seating Position	Location of occupant within vehicle or on motorcycle.
Second Event	Occurrence which was the second thing that happened to the vehicle in question that was relevant to the crash.
Second Seat - Left Side	Passenger behind driver of motor vehicle or motorcycle.
Second Seat - Middle	Passenger in middle of back seat.
Second Seat - Right Side	Passenger behind right front seat passenger.
Separation of Units	When the truck or truck tractor becomes separated from the semi-trailer and/or trailer(s) they are pulling.
Sequence of Events	A list of the things that occurred to the vehicle in question that was relevant to the crash.
Severe Crosswinds	Winds at a high rate of speed blowing across the road.
Severe/Vehicle Totaled	Determination as to whether or not vehicle damage was disabling so that vehicle was not drivable. As a result, vehicle had to be towed, or carried from crash scene, or assisted by an emergency vehicle.
Sex	The gender of person involved in a crash.
Shared-use Path or Trail	A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or wthin an independent right of way. Shared use paths will also be used by pedestrians, skaters, wheelchairs, joggers and other non-motorized users.

Shipping Papers (Truck)	The documents carried in the cab of the truck or truck tractor that indicates the cargo being carried and other motor carrier responsible for the movement of the cargo.
Shoulder and Lap Belt Used	In a two part occupant restraint system, both the shoulder belt and lap belt portions are connected to a buckle.
Shoulder Belt Only Used	In a two part occupant restraint system, only the shoulder belt portion is connected to a buckle.
Shoulder	That part of a trafficway contiguous with the roadway for emergency use, for accommodation of stopped road vehicles, and for lateral support of the roadway structure.
Shoulders Low, Soft, or High	A shoulder with a different height than that of the roadway.
Sideswipe, Same Direction - Manner of Impact	A crash where two vehicles traveling the same direction and impact on the side.
Sideswipe, Same Direction - Force of Collision	A crash in which the direction of force comes from the side and the vehicle is pointed in the same direction as the direction of force.
Sideswipe, Opposite Direction - Manner of Impact	A crash where two vehicles traveling the opposite direction and impact on the side.
Sideswipe, Opposite Direction - Force of Collision	A crash in which the direction of force comes from the side and the vehicle is pointed in the opposite direction from the force.
Sidewalk	The portion of a highway, other than the roadway, set apart by curbs, barriers, markings or other delineation for exclusive use by pedestrians.
Single-Unit Truck (3-or-more axles)	A power unit that includes a permanently mounted cargo body (also called a straight truck) that has three or more axles.
Single-Unit Truck (2-axle, 6-tire)	A power unit that includes a permanently mounted cargo body (also called a straight truck) that has only two axles and at least six tires on the ground.
Skater	A person wearing in-line roller, roller or bladed skates or using a skateboard.

Sleeper Section of Cab (Truck)	Section in back of truck cab where occupants can sleep.
Sleet	Frozen or partly frozen rain.
Slope	The change in the elevation of an element of the roadway per unit of horizontal length, may be expressed as a percent or a ratio.
Slush	Partly melted or watery snow.
Snow	White crystals of frozen water formed directly from the water vapor of the air at a temperature of less than 32 F.
Source of Information	Identity of the source providing the information on the crash report.
Standing	Non-motorist not in movement on the roadway.
State Specific Identifier	A identifier which uniquely identifies a given crash in a given year and in a state.
Stop Signs	A six-sided red sign with “STOP” on it, requiring vehicles to come to a full stop and look for on-coming traffic before proceeding with caution.
Stopped in Traffic	Vehicle stopped in traffic at the time of the crash.
Striking	Vehicle hits an object, person or other vehicle at time of the crash.
Struck	Vehicle is hit by an object, person or other vehicle at time of the crash.
Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc.	Defensive driver action to defend against an apparent danger in, on, or due to the condition of the roadway or the presence of vehicle or object or non-motorist in the roadway in order to avoid a crash.
Switch in OFF Position	Air bag on-off switch is in the off position, indicating the air bag has been deactivated.
Switch in ON Position	Air bag on-off switch is in the on position, indicating air bag can be activated.
Switch Status	Determination of air bag on-off switch indicator as in the “on” or the “off” position.

T-Intersection	An intersection where two roadway connect and one roadway does not continue across the other roadway. The roadways form a “T”.
Test Status	Indication as to whether drug test was administered; if the results show drugs reported; if test sample was unusable or contaminated. Indication as to whether alcohol test was administered; if test was refused; if results are known; if sample was contaminated or unusable.
Test Result	Outcome of test for drug presence indicating, if drugs present, which type is present.
Test Refused	Person refused to take drug/alcohol test.
Test Given, Results Unknown	Person administered test for drug/alcohol presence, but outcome of test not known.
Test Given, Contaminated Sample/Unusable	Person administered test for drug/alcohol presence, but test sample invalidated.
Third Row - Middle	Passenger seat in middle of third row of motor vehicle.
Third Row - Left Side	Passenger seat on left side of third row of motor vehicle or second passenger (excluding driver) on motorcycle.
Third Row - Right Side	Passenger seat on right side of third row of motor vehicle.
Third Event	Occurrence which was the third thing that happened to the vehicle in question that was relevant to the crash.
Through Traveled Way	The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.
Total Non-Fatal Injuries	The total number of persons injured in a specific traffic crash. Derived by counting the number of persons injured from **Injury Status-Non-Fatal Injury (P4)**.

Total Fatal Injuries	The total number of fatalities (motorists and non-motorists) which resulted from injuries sustained as the result of a specific road vehicle crash. In reporting fatality statistics, a 30-day counting rule is generally used for highway safety statistics. These rules provide that only those deaths which occur within 30 days of a crash will be counted for statistical purposes. Derived by counting number of fatal injuries from **Injury Status-Fatal Injury (P4)**.
Total Occupants In Vehicle	The total number of occupants in the vehicle involved in the crash, including persons in or on the vehicle at the time of the crash.
Totally Ejected	Occupant's body completely thrown from the vehicle as a result of the crash.
Tractor/Triples	A truck tractor that is pulling a single semi-trailer and two full trailers.
Tractor/Semi-Trailer	A truck tractor that is pulling a semi-trailer.
Traffic Circle/Roundabout	An intersection of roads where vehicles must travel around a circle to continue on the same road or to any intersecting road.
Traffic Control Signal	A device which controls traffic movements by illuminating systematically a green, yellow, or red light.
Traffic Control Device Inoperative or Missing	A traffic control device which is not working or is not present.
Traffic Control Device Type	The type of traffic control, if any, at a crash location.
Trailer License Plate Number	The number or other characters, exactly as displayed, on the registration plate or tag affixed to the trailer.
Trailer Registration State and Year	The State, commonwealth, territory, foreign country, Indian nation, U.S. Government, etc. issuing the registration plate and the year of registration as indicated on the registration plate displayed on the trailer.
Trailing Unit	Occupant of motorcycle caboose or attached trailer of motor vehicle.

Transported to Medical Facility By	Type and identity of EMS agency providing transport and medical facility receiving patient.
Trapped	Persons who are mechanically restrained in the vehicle by damaged vehicle components as a result of a crash, and are freed from the vehicle.
Traveled Way	The portion of a roadway for the movement of vehicles, exclusive of shoulders.
Trip Manifest (Bus)	The document carried by the driver in the bus that indicate the name of the motor carrier responsible for the movement of the passengers.
Truck Tractor (Bobtail)	A motor vehicle consisting of a single motorized transport device designed primarily for pulling semi-trailers.
Truck/Trailer	A motor vehicle combination consisting of a single-unit truck and a trailer (a vehicle designed for carrying property and so constructed that no part of its weight rests upon or is carried by the towing road vehicle).
Type of Junction	A junction is either an intersection or the connection between a driveway access and a roadway other than a driveway access.
Underride/Override	An Underride refers to a vehicle sliding under another vehicle during a crash. An Override refers to a vehicle riding up over another vehicle. Both can occur with a parked vehicle.
US DOT	United States Department of Transportation.
Utility Pole	A pole or post constructed for the primary function of supporting an electric line, telephone line or other electrical-electronic transmission line or cable.
Van/Enclosed Box	A single-unit truck, truck/trailer, or tractor/semi-trailer having an enclosed body integral to the frame of the vehicle
Vehicle Authorized Speed Limit	The posted speed limit for the type of vehicle being driven - take into account that the limit might be different, for example, for a truck and a passenger car.

Vehicle Body Type	Code used in the Vehicle Identification Number to indicate the general configuration or shape or a vehicle distinguished by characteristics such as number of doors, seats, windows, roof line, hard top or convertible. Derived from the **Vehicle Identification Number (RL1).**
Vehicle Configuration	Indicates the general configuration of vehicle.
Vehicle License Plate Number	The number or other characters, exactly as displayed, on the registration plate or tag affixed to the vehicle. For combination trucks, vehicle plate number is obtained from the power unit or tractor.
Vehicle Make	The distinctive (coded) name applied to a group of vehicles by a manufacturer. Derived usually from positions 1-3 of the **Vehicle Identification Number (RL1)** for 1981 to present. Prior to 1981, the position in the VIN for the vehicle make varied by manufacturer. This information also can be obtained separately from the Vehicle Registration File.
Vehicle Maneuver/Action	What the vehicle was doing prior to the crash.
Vehicle Model	The manufacturer assigned code denoting a family of vehicles (within a make) which has a degree of similarity in construction, such as body, chassis, etc. Derived usually from positions 4 and 5 of the **Vehicle Identification Number (RL1)** for 1981 to present. Prior to 1981, the position for the model varied by manufacturer. This information also can be obtained separately from the Vehicle Registration File.
Vehicle Model Year	The year which is assigned to a vehicle by the manufacturer. Usually it is the year in which the model change occurs. Derived from the 10th position of the **Vehicle Identification Number (RL1)** for 1981 to present. Prior to 1981, the position for the model year varied by manufacturer. This information also can be obtained separately from the Vehicle Registration File.
Vehicle Number Unique to Crash	Number assigned to vehicle involved in the crash.

Vehicle Registration State and Year	The State, commonwealth, territory, foreign country, Indian nation, U.S. Government, etc. issuing the registration plate and the year of registration as indicated on the registration plate displayed on the vehicle.
Vehicle Role	Indicates vehicle role in single and multi-vehicle crashes. Role does not imply fault.
Vertical Alignment	The profile or elevation view of a roadway. Vertical alignment is described in terms of grades (uphill or downhill) and crest or sag curves.
Warning Signs	Signs used to warn traffic of existing or potentially hazardous conditions on or adjacent to a road.
Water (Standing, Moving)	Water in the road either standing still or moving which is there because of flooding.
Weather Condition - Contributing Circumstances	An atmospheric conditions that existed at the time of a crash which contributed to the crash.
Weight Rating of Power Unit of the Truck	A gross vehicle weight rating is a value specified by the manufacturer for a single-unit truck, truck tractor or trailer, or the sum of such values for the units which make up a truck combination.
Weight Rating of Power Unit	A gross vehicle weight rating is a value specified by the manufacturer for a single-unit truck, truck tractor or trailer, or the sum of such values for the units which make up a truck combination.
Wet	Covered with or soaked with liquid (such as water).
Work Zone	A segment of the roadway marked to indicate that construction, maintenance, or utility work is being performed.
Work Zone Related	A crash which occurs in or near a designated work zone.
Worn, Travel-Polished Surface	A road surface which is well used and shinny.
Y-Intersection	An intersection where three roadways connect and none of the roadways continue across the other roadways. The roadways form a “Y”.
Yield Signs	Three-sided signs which requires vehicles to give way to other vehicles.

LIST OF APPENDICES

APPENDIX A: State and Province Codes

United States (US)

AL	01	Alabama	MT	30	Montana
AK	02	Alaska	NE	31	Nebraska
AZ	04	Arizona	NV	32	Nevada
AR	05	Arkansas	NH	33	New Hampshire
CA	06	California	NJ	34	New Jersey
CO	08	Colorado	NM	35	New Mexico
CT	09	Connecticut	NY	36	New York
DE	10	Delaware	NC	37	North Carolina
DC	11	District of Columbia	ND	38	North Dakota
FL	12	Florida	OH	39	Ohio
GA	13	Georgia	OK	40	Oklahoma
HI	15	Hawaii	OR	41	Oregon
ID	16	Idaho	PA	42	Pennsylvania
IL	17	Illinois	RI	44	Rhode Island
IN	18	Indiana	SC	45	South Carolina
IA	19	Iowa	SD	46	South Dakota
KS	20	Kansas	TN	47	Tennessee
KY	21	Kentucky	TX	48	Texas
LA	22	Louisiana	UT	49	Utah
ME	23	Maine	VT	50	Vermont
MD	24	Maryland	VA	51	Virginia
MA	25	Massachusetts	WA	53	Washington
MI	26	Michigan	WV	54	West Virginia
MN	27	Minnesota	WI	55	Wisconsin
MS	28	Mississippi	WY	56	Wyoming
MO	29	Missouri	DS	57	The U.S. Department of State

AS	60	American Somoa
PZ	61	Panama Canal Zone
FM	64	Federated States of Micronesia
GU	66	Guam
MP	69	Northern Mariana Islands
PW	70	Palau
PR	72	Puerto Rico
UM	74	U.S. Minor Outlying Islands
MH	75	Marshall Islands
VI	78	Virgin Islands of the U.S.
WK	79	Wake Island

Canada (CN)

AB	01	Alberta	NS	07	Nova Scotia
BC	02	British Columbia	ON	08	Ontario
MB	03	Manitoba	PE	09	Prince Edward Island
NB	04	New Brunswick	PQ	10	Quebec
NF	05	Newfoundland	SN	11	Saskatchewan
NT	06	Northwest Territory	YT	12	Yukon Territory

Mexico (MX)

AG	01	Aguascalientes	MR	17	Morelos
BA	02	Baja California Norte	NA	18	Nayarit
BJ	03	Baja California Sur	NL	19	Nuevo Leon
CM	04	Campeche	OA	20	Oaxaca
CI	05	Chiapas	PB	21	Puebla
CH	06	Chihuahua	QU	22	Queretero de Arteaga
CU	07	Coahuila de Zaragoza	QR	23	Quintana Roo
CL	08	Colima	SL	24	San Luis Potosi
DF	09	Distrito Federal	SI	25	Sinaloa
DO	10	Durango	SO	26	Sonora
GT	11	Guanajuato	TB	27	Tabasco
GR	12	Guerrero	TA	28	Tamaulipas
HL	13	Hidalgo	TL	29	Tlaxcala
JL	14	Jalisco	VC	30	Veracruz-Llava
MX	15	Mexico	YU	31	Yucatan
MC	16	Michoacan de Ocampo	ZA	32	Zacatecas

Other Jurisdictions (OT)

OT 99 Jurisdictions other than states or provinces of the United States, Canada, and Mexico

Note: Code with country and state or province. Where there is no chance of ambiguity, state or province codes may be used without the country code. (Note that state and province codes are unique within each country but may be duplicated in other countries.)

EXAMPLE: Alabama may be coded as USAL or US01. Chihuahua may be coded as MXCH or MX06.

APPENDIX B: Dates and Times

Numbers are always right-justified. Use leading zeroes when necessary.

Subfield 1: Year

nnnn	Year
7777	Permanent
8888	Indefinite
9999	Unknown

Subfield 2: Month

01	January
02	February
03	March
04	April
05	May
06	June
07	July
08	August
09	September
10	October
11	November
12	December
77	Permanent
88	Indefinite
99	Unknown

Subfield 3: Day

nn	Day of Month
77	Permanent
88	Indefinite
99	Unknown

EXAMPLES: The fifth of March, nineteen ninety-two is coded 19920305.

Time

Subfield 1: Hour

nn	0-23, representing the time on a 24-hour clock
99	Unknown

Subfield 2: Minute

nn	Minute
99	Unknown

EXAMPLES: 11:55 p.m. would be coded 2355. Midnight is coded 0000 and is the beginning of a new day, not the end of the preceding day.

Appendix C: Names

The length and type of a name field is 35/ANS.

NAMES OF PERSONS

There are four subfields within the name field and each ends in a spacer (“@”) except for the final field. SUFFIX. Spacers must be used to differentiate the name subfields. From left to right, the code is composed of LAST NAME, @, FIRST NAME, @ MIDDLE NAMES SEPARATED BY SPACES, @, SUFFIX. A spacer must follow every subfield except for SUFFIX, even when the subfields contain no data.

Irregular Names

If a person has only one name, that name must be coded in tne Last Name subfield. An asterisk (***) in the First Name subfield indicates the person has no first name. If the person's first name is unknown, put no data into the First Name subfield except for the spacer.

This Middle Name subfield will accommodate multiple middle names. Multiple middle names should be separated by blank spaces.

The only special character allowed in the Last Name subfield is a hyphen (“-”), which may occur only once and must be embedded between two alphabetic characters (as in the last name "Stuart-Washington”).

Prefixes and titles are not allowed in any subfield of the name, and only the defined suffix codes may be used.

Long Names

If a coded name exceeds 35 characters, it may by truncated by the following rules:

1. If the coded name exceeds 35 characters, including spacers (@), the suffix subfield will not be coded.

2. If, after (1), the name code still exceeds 35 characters, the middle name is truncated. Truncation begins at the end of the last occurring middle name. If necessary, the middle name subfield may be reduced to the first initial of the first-occurring middle name. *The first initial of the first occurring middle name shall always be coded.*

3. If, after (1) and (2), the name code still exceeds 35 characters, the first name is truncated. Truncation begins at the last character of the first name. If necessary, the first name subfield may be reduced to the first initial of the first name. *The first initial of the first name shall always be coded.*

4 . If, after (1), (2), and (3), the name code still exceeds 35 characters, the last name is truncated. Truncation proceeds with the last character of the last name and continues until the name code is 35 characters in length, including spacers and first and middle initials.

CODE	Description
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	LAST NAME, @, FIRST NAME, @MIDDLE NAMES SEPARATED BY SPACES, @, SUFFIX

Suffixes (if present)

JR	Junior
SR	Senior
1ST (or I)	First
2ND (or II)	Second
3RD (or III)	Third
4TH (or IV)	Fourth
5TH (or V)	Fifth

EXAMPLE., DOE@JOHN@X is the proper code for '"John X. Doe." "John Wi nston Smith Doe, Jr. is coded DOE@JOHN@WINSTON SMITH@JR. '"Kimberly Allen Beauregard Churchill-Rockwell, IV" is coded CHURCHILL-ROCKWELL@KIMBERLY@ALLEN@ (the suffix is eliminated, and the second middle name is truncated).

OTHER NAMES

Names not belonging to persons, such as those of businesses, organizations, or state governments, are coded without the use of sub-fields, but use the following two rules:

1. When possible, use standard abbreviations, such as CO for "company", INC for 'Incorporated', or US for "United States."

2. If, after abbreviating, the name still exceeds 35 characters, truncate the end of the name as necessary.

EXAMPLES: The code for "John Smith Trade and Transportation Company" is JOHN SMITH TRADE & TRANSPORTATION C. DOE ELECTRONICS, INC Is the code for "Doe Electronics, Incorporated. "Wilson & Co." remains WILSON & CO.

Source:

Based on *Driver History Record Data Dictionary,* May 22, 1990, pages B5-B6.

Appendix D: Addresses

Address fields are variable length composite fields with a maximum length of 71 or 108. Following are descriptions of how to set up the fields for both. Each subfield contains one type of data followed by either a delimiter, "@", to indicate the end of the subfield or an ending delimiter, ";", to show the end of the address code. The spacers must be used to differentiate the name positions. The name and maximum length and type of each subfield is shown in the table below. The maximum length for each subfield includes one space for the delimiter.

SUBFIELD		MAXIMUM LENGTH/TYPE 71	108
Subfield 1	Street Address A (and delimiter)	21/ANS	36/ANS
Subfield 2	Street Address B (and delimiter)	21/ANS	36/ANS
Subfiold 3	City or Town (and delimiter)	16/ANS	21/ANS
Subfiold 4	Alphabetic State Code (and delimiter)	3/ANS	3/ANS
Subfield 6	Zip Code (and delimiter)	10/ANS	12/ANS

The code is composed in the basic format:

Street Address A@Street Address B@City or Town@State@Zip Code;

If data for any of the five subfields is omitted, that subfield's delimiter must still be coded.

Use standard abbreviations for street and place names if necessary. Abbreviations for use in addresses are listed in *National Five-Digit Zip Code & Post Office Directory* U.S. Postal Service, 1991, pages 2-3 through 2-11.

Use the two-character alphabetic codes for the state subfield. Alphabetic abbreviations of state names are available in Appendix A.

EXAMPLE. For 29293 Abbot Farms Court, Suite #40, Trenton, New Jersey, 08610 the code is:

29293 ABBOT FARMS CT@SUITE 40@TRENTON@NJ@08610;

For 1234 South Elm Avenue, Springfield, Illinois 62703, the code is:

1234 S ELM AVENUE@@SPRINGFIELD@IL@62703;

Note the two delimiters following Street Address A in the second example, which indicate that there is no Street Address B.

Source: Based on *Driver History Record Date Dictionary,* October 1994.

Federal Information Processing Standards (FIPS) Codes for Locations

Standardized codes for states, counties, cities/towns are published by the National Bureau of Standards in the Federal Information Processing Standards (FIPS) Register.

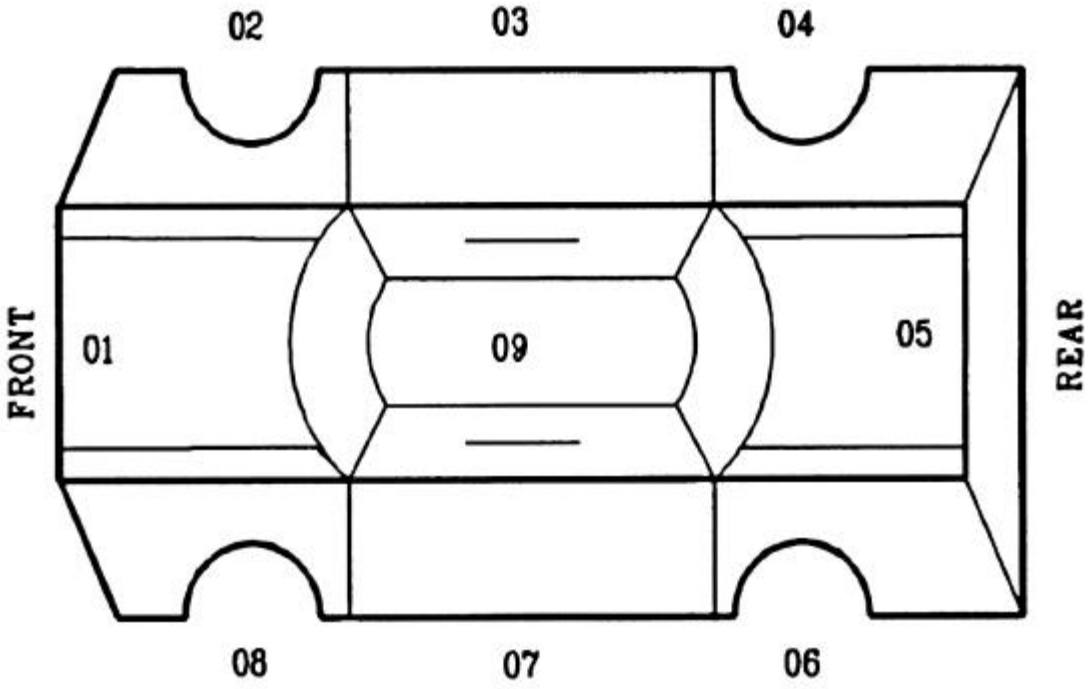
FIPS Publication 5-2 (May 1987
Codes for States, District of Columbia, and outlying areas

FIPS Publication 6-4 (August 31, 1990)
Codes for Counties, County Equivalents of the States of United States, District of Columbia

FIPS Publication 8-6 (March, 1995)
Codes for MSAs, CMSAs, PMASs, and NeCMAs

Appendix E: Vehicle Damage Areas

Source: ANSI D-20



DAMAGE AREA

00 None
01 Center front
02 Right front
03 Right side
04 Right rear
05 Rear center
06 Left rear
07 Left side
08 Left front
09 Top and windows
10 Undercarriage
11 Total (All areas)
12 Other
99 Unknown

Appendix F: Violation and Conviction Codes

(Source: D20.1)

Accident (AC):

AC Accident condition not covered by the codes defined below
AC1 Violation of a motor vehicle law resulting in bodily injury, (if fatality use FA)
AC2 Violation of motor vehicle law resulting in property damage
AC3 Violation of motor vehicle law not resulting in damage to persons or property but considered an accident
AC4 Involvement in an accident--no indication of fault

Detective Equipment (DE):

DE Defective equipment condition not covered by the codes defined below
DEI Operating with defective headlights
DE2 *Operating* with *defective brakes*
DE3 Operating with defective muffler or exhaust system
DE4 Operating with defective tires
DE5 Operating with any defective equipment resulting in inability to control vehicle movement properly

Driving While Intoxicated Violation Pertaining to Intoxicants (DI):

Di Driving while intoxicated condition not covered by the codes defined below
Dl1 Driving under the intoxicating influence of alcohol, narcotics, or pathogenic drugs
D12 *Driving while under the intoxicating influence of medication or* other substances not intended to produce intoxication as a result of normal use
D13 Refusal to submit to a test for alcohol after arrest for driving while intoxicated or suspicion of intoxication
D14 Illegal possession of alcohol or drugs in motor vehicle
D15 Administrative Per Se
D16 Impaired

Disability (DS):

DS Disability condition not covered by the codes defined below
DSI Inability to pass one or more tests required for driver license
DS2 Operating a motor vehicle improperly because of physical or mental disability
DS3 Failure to discontinue operating vehicle after onset of physical or mental disability (including uncontrollable drowsiness)

Equipment Misuse (EM):

EM Equipment Misuse condition not covered by the codes defined below
EMI Leaving a vehicle unattended with engine running
EM2 Overloading vehicle with passengers or cargo
EM3 Towing or pushing vehicle improperly
EM4 Creating unlawful noise with vehicle or accessory
EMS Failure to dim lights as required
EM6 Using a vehicle in connection with illegal activity other than a felony
EM7 Operating or using a vehicle without consent of the owner

Equipment Regulations (ER):

ER Equipment Regulations condition not covered by the codes defined below
ER1 Operating without equipment required by law
ER2 Use of equipment prohibited by law

Fatality (FA):

FA Fatality condition not covered by the codes defined below
FAl Violation of a motor vehicle law resulting in the death of another person
FA2 Violation of a motor vehicle law resulting in one's own death
FA3 Suicide by motor vehicle

Felony (FE):

FE Felony condition not covered by the codes defined below
FE1 Using a motor vehicle as the device for committing a felony
FE2 Using a motor vehicle in connection with a felony
FE3 Using a motor vehicle to aid and abet a felon

Following Improperly (FO):

FO Following Improperly condition not covered by the codes defined below
FOI Following too closely
F02 Failure of a truck to leave sufficient distance for being overtaken by another vehicle
F03 Following an emergency vehicle unlawfully

Financial Responsibility (FR):

FR Financial Responsibility condition not covered by the codes defined below
FR1 Unsatisfied judgement
FR2 Failure to meet requirements of the security following accident provisions of the FR law
FR3 Failure to file future proof of financial responsibility following conviction for violation of motor vehicle law
FR4 Failure to file future proof of financial responsibility as required under any other provision of the FR law
FRS Failure to maintain required compulsory liability insurance

Habitual Offender: *See HABITUAL VIOLATOR*

Hit and Run; Leaving the Scene; Evading Arrest (HR):

HR Hit and Run condition not covered by the codes defined below
HRI Failure to stop and render aid after involvement in accident resulting in bodily injury
HR2 Failure to stop and reveal identity after involvement in accident resulting in property damage only
HR3 Leaving the scene of an accident after providing aid or identity but before arrival of police
HR4 Evading arrest by fleeing the scene of citation or roadblock
HR5 Evading arrest by extinguishing lights (when lights required)

Habitual Violator (HV):

HV Conviction of multiple serious offenses resulting in a long term removal of the license. (Conviction of multiple minor offenses should use the appropriate Repeated Violations Codes)

Improper Lane Operating Where Prohibited (IL):

IL Improper Lane condition not covered by the codes defined below
ILl Improper lane changing
IL2 Failure to keep in proper lane
IL3 Ran off road
IL4 Driving on road shoulder, in ditch or on sidewalk
IL5 Making improper entrance to or exit from trafficway

Littering (Ll):

Ll Littering condition not covered by the codes defined below
Lil Depositing injurious or harmful substance on trafficway
L12 Throwing from vehicle any burning or smoldering substance
L13 Littering from a motor vehicle

Misrepresentation Contribution Violation (MR):

MR Misrepresentation condition not covered by the codes defined below
MR1 Misrepresentation of identity or other facts to obtain a driver license (if registration or title involved, see RT)
MR2 Displaying a driver license which is invalid because alteration, counterfeiting, or withdrawal (suspension, revocation, etc)
MR3 Displaying the driver license of another person
MR4 Loaning a driver license
MRS Obtaining or applying for a duplicate driver license during withdrawal
MR6 Misrepresentation of identity or other facts to avoid arrest or prosecution

Miscellaneous (MS):

MS Miscellaneous condition not covered by the codes defined below
MS1 Starting improperly from a parked position
MS2 Improper backing
MS3 Opening vehicle closure into moving traffic or while vehicle is in motion
MS4 Crossing fire hose with vehicle
MS5 Sex offense in vehicle
MS6 Unsafe operation of vehicle

Passing (PA):

PA Passing condition not covered by the codes defined below
PAl Passing when prohibited by posted signs, pavement markings, or on hill or curve
PA2 Passing on wrong side
PA3 Passing with insufficient distance allowed for other vehicles or with inadequate visibility
PA4 Passing school bus taking on or discharging passengers or displaying warning not to pass
PA5 Failure to signal intention to pass
PA6 Failure to yield to overtaking vehicle

Reckless, careless, or negligent driving (RK):

RK Reckless, Careless, or Negligent Driving condition not covered by the codes defined below
RKI Heedless, willful, wanton, or reckless disregard of the rights and safety of others in operating a motor vehicle, endangering persons or property
RK2 Operating a motor vehicle without the exercise of care and caution required to avoid danger to persons or property

RK3 Transporting hazardous substance without required safety devices or precautions
RK4 Coasting or operating with gears disengaged

Required Reports, Appearances, or Documents (RR):
RR Required Reports, Appearances, or Documents condition not covered by the codes defined below
RRI Failure to file report of accident as required
RR2 Failure to appear for hearing or trial
RR3 Failure to surrender driver license, registration, or title documents as required
RR4 Failure to keep driver license or registration certificates in possession while driving or in vehicle as required
RR5 Operating motor vehicle with registration plates missing, defaced, or obscured

Registration and Titling (RT):
RT Registration and Titling condition not covered by the codes defined below
RTI Operating a vehicle without registering it as required
RT2 Operating with expired registration
RT3 Misrepresentation of identity or other facts to obtain a vehicle registration or title
RT4 Displaying a registration or title which is invalid because of alteration, counterfeiting or withdrawal (revocation, suspension, etc.)

Repeated Violations (RV):
RV Repeated Violations condition not covered by the codes defined below
RV1 Recurrence of violations requiring mandatory action of the licensing authority as specified by law
RV2 Accumulation of violations resulting in mandatory action of the licensing authority because of a statutory point system
RV3 Accumulation of violations resulting in discretionary action by the license authority

Right of Way (RW):
RW Right of Way condition not covered by the codes defined below
RWI Failure to yield right of way to emergency or other authorized vehicle
RW2 Failure to yield right of way at yield sign, after stop sign, or when emerging from private traffic way
RW3 Failure to yield right of way in a manner required at unsigned intersection
RW4 Failure to yield right of way to pedestrian, animal rider or animal-drawn vehicle as required
RW5 Failure to yield to school bus as required

Signs and Control Devices (SC):
SC Signs and Control Devices condition not covered by the codes defined below
SC1 Failure to follow instructions of police officer
SC2 Failure to obey traffic instructions stated on traffic sign or shown by traffic control device
SC3 Passing through or around barrier positioned to prohibit or channel traffic
SC4 Failure to observe warnings or instruction on vehicle properly displaying them
SC5 Failure to observe safety zone
SC6 Obscuring, tampering with, or illegally displaying traffic control devices, warnings, or instructions

Signaling Intention& (Si):
Si Signaling Intentions condition not covered by the codes defined below

Si1 Failure to signal intention to change vehicle direction or to reduce speed suddenly
S12 Giving wrong signal
S13 Failure to cancel directional signals after executing maneuver

Speeding (SP):
SP Speeding condition not covered by the codes defined below
SP1 Contest racing on public traffic way
SP2 Prima Facie speed violation or driving too fast for conditions
SP3 Speed in excess of posted maximum
SP4 Speed less than posted minimum
SP5 Operating at erratic or suddenly changing speeds

Turns (TU):
TU Turn condition not covered by the codes defined below
TUl Making right turn from left turn lane
TU2 Making left turn from right turn lane
TU3 Making improper turn

Violation of Restriction Licensing Requirements (VR):
VR Violation of Restriction Licensing Requirements condition not covered by the codes defined below
VRl Driving while revoked
VR2 Driving while suspended
VR3 Driving after license denied
VR4 Operating contrary to conditions specified on driver license
VR5 Operating without being licensed or without license required for type of vehicle operated
VR6 Allowing an unlicensed operator to drive

Wrong Way, Side or Direction (WW):
WW Wrong Way, Side or Direction condition not covered by the codes defined below
WWl Driving wrong way on one-way street
WW2 Driving or, wrong side of road
WW3 Driving in wrong direction at rotary intersection

Conviction Codes Relating To FHWA Final Rule; Serious Traffic Violations:

CIl 383.51 (b)(2)(i)(A) “Driving a commercial motor vehicle while the person's alcohol concentration is 0.04 percent or more,”
C12 383.51 (b)(2)(i)(B) “Driving under the influence of alcohol, as prescribed by State law;"
C13 383.51 lb)(2)(i)(C) "Refusal to undergo such testing as is required by any State or jurisdiction in the enforcement of Section 383.51 (b)i2)(1)(A)or(B), or Section 392.5(a)(2).”
C14 383.51 (b)(2)(ii) “Driving a commercial motor vehicle while under the influence of a controlled substance as defined under Section 102(8) of the Controlled Substances Act (21 U.S.C.802(6)), including all substances listed in Schedules I through V of 21 CFR Part 1308, as they may be amended from time to time.*

C15 383.51 (b)(2)(iii) “Leaving the scene of an accident involving a commercial motor vehicle;"

C16 383.51 (b)(2)(iv) “A felony involving the use of a commercial motor vehicle, other than a felony described in paragraph (b)(2)(v) of this section; or,"

C17 383,51 (b)(2)(v) “The use of a commercial vehicle in the commission at a felony involving manufacturing, distributing, or dispensing a controlled substance when defined as any substance under Section 102(6) of the Controlled Substances Act (21 U.S.C. 802(6)) including all substances listed in Schedules I through V of 21 CFR Part 1308, as they may be amended from time to time.'

C18 383.5 (a) “Excessive speeding, involving any single offense for any speed of 1 5 miles per hour or more above the posted speed limit;”

C19 383.5 (b) “Driving a commercial motor vehicle in willful or wanton disregard for the safety of persons or property;-

C20 383.5 (b) “Reckless driving, as defined by State or local law or regulation.

C21 383.5 (c) “Improper or erratic traffic lane changes:"

C22 383.5 (d) “Following the vehicle ahead too closely.

C23 383.5 (a) “A violation, arising in connection with a fatal accident, of State or local law relating to motor vehicle traffic control (other than a parking violation). (Serious traffic violations exclude vehicle weight and defect violations.)”

Disqualification Period: One Year

C51 Disqualification for Driving a commercial motor vehicle while the person's alcohol concentration is 0.04 percent or more. 383.5 (b)(2)(i)(A)

C52 Disqualification for Driving under the influence of alcohol, as prescribed by State law. Section 383.51 (b)(2)(i)(B).

C53 Disqualification for Refusal to undergo such testing as is required by any State or jurisdiction in the enforcement of sections 383.51(b)(2)(i)(A) or (B) or 392.5(a)(2). Section 383.51 (b)(2)(i)(C).

C54 Disqualification for Driving a Commercial motor vehicle while under the influence of a controlled substance as defined under Section 102(6) of the Controlled Substance Act (21 U.S.C. 802(6)), including all substances listed in Schedules 1 through V of 21 CFR Part 1308, as they may be amended from time to time. Section 383.51 (b)(2)(ii).

C55 Disqualification for Leaving the scene of an accident involving a commercial motor vehicle. Section 383.51 (b)(2)(iii).

C56 Disqualification for A felony involving the use of a commercial motor vehicle, other than a felony described in paragraph (b)(2)(v) of Section 383.5 1. Section 383.51 (b)(2)(iv).

Disqualification Period Three Years

C61 As in C51, but involving hazardous materials. Section 383.511b)(2)(i)(A).

C62 As in C52, but involving hazardous materials. Section 383.51 (b)(2)(i)(B).

C63 As in C53, but involving hazardous materials. Section 383.51(b)(2)(i)(C).

C64 As in C54, but involving hazardous materials. Section 383.51 (b)(2)(ii).

C65 As in C55, but involving hazardous materials. Section 383.51 (b)(2)(iii).

C66 As in C56, but involving hazardous materials. Section 383.51 (b)(2)(iv).

Disqualification Period: Lifetime

C70 Disqualification for The use of a commercial motor vehicle in the commission of a felony involving manufacturing, distributing, or dispensing a controlled substance when defined as any substance under Section 102(6) of the Controlled Substances Act (21 U.S.C. 802(6)) including all substances listed in Schedules I through V of 21 CFR Part 1308, as they may be amended from time to time. This is a lifetime disqualification.

C71 Disqualification for 2nd for any combination of violations in Section 383.51 (b)(2) through (iv). This is Lifetime disqualification. (Driver may subsequently be eligible for reinstatement of privileges after I 0 year period.)

Disqualification Period: 60 and 120 Days

C80 Disqualification of a driver who during any 3-year period, is convicted of two serious traffic violations in separate incidents. Disqualification period 60 days Section 383.51(3)(c)(i)

C81 Disqualification of a driver who during any 3-year period, is convicted of three serious traffic violations in separate incidents. Disqualification period 120 days. Section 383.51(3)(c)(ii).

C99 24 Hour Out of Service Order, Section 392.5.

OTHER CODES

Change State of Record Surrender (CS):

CS This code is provided for optional use by the “old” State of Record in the Change State of -Record Process to mark their State's internal files indicating that this driver has been issued a license by another State (the “new' State of Record). As far as the driver is concerned in a Change State of Record process, the driving privilege has not been withdrawn, but rather transferred. Therefore, it is incorrect for the "old' State of Record (or any State of Record) to transmit a Driver History Record with a “CS” as the Withdrawal Reason in a withdrawal entry. Please refer to the Change State of Record section in the CDLIS-St:ate Procedures document for more information.

Voluntary Surrender (VS):

VS The voluntary surrender of a license and the driving privilege (i,e. the driver does not intend to renew their license to drive that class of vehicle)

Sources:
AAMVA Violations Exchange Code.

Appendix G: Data Elements Useful for Linkage

Data elements that describe the location:

Linkage of crash to roadway inventory files: Location in the crash data must be defined to match that in the roadway data file for linkage to be successful. Various types of data elements currently used to define location in the roadway files are listed below.

- Road Name/Route Number/Route Signing:
- Mile Marker/Milepost/Milepoint: (The displacement in miles or kilometers from a zero or base point (state line, county line, or point where the route originates) to the nearest 0.1 mile (km) along the route.)
- At Intersection of Road Name/Route Number:
- Miles, Feet (N,S,E,W) of Road Name/Route Number:
- Latitude/Longitude:

As new technology, such as the geopositioning satellite systems, are incorporated the highway location should be recorded to the appropriate precision allowed by the system, such as the nearest meter. As State road inventory files are converted to geographic information system (GIS) relational databases, the use of GPS crash location data will allow linking to more complete descriptors of the crash scene.

Linkage of crash to health care records: Location of the crash scene is defined as an address (pick-up location) in the EMS data and national guidelines also recommend similar documentation in the emergency department (ED) data. However, EDs do not routinely collect this information currently and hospitals never document the geographic location of the injury event. In many instances, defining the location of the crash as a city or county may be sufficient.

- Address of the crash
- City/county

Data elements that identify persons:

Linkage of the crash to EMS, emergency department, hospital discharge, other health records or insurance records: Persons may be identified using a combination of direct and/or indirect identifiers.

- Direct identifiers include name, initials, social security number, or some other type of identifier that is unique for a person. This type of identifier is not usually available for linking crash to health data because of the need to protect patient confidentiality.
- Indirect identifiers include date of birth (or age when date of birth is not available), sex, injury type and severity, residence/zip code, admit date/hour, area of injury and others which are used in combinations to uniquely identify a person.

Linkage of the crash to the driver licensing or citation file: Drivers may be identified using a unique number for that driver.

- Driver license number

Data elements that describe a specific event (crash):

Linkage of the crash to the health records: Crash events may be identified by using a combination of data elements which document the date and time and who responded.

- Date and times for the crash, police and EMS response,
- Identification of the police and EMS emergency units that respond
- Identification of the hospital receiving the victim.
- Hospital service area/EMS region
- Type of event (crash)

DOT HS 808 662
December 1997